# BUILDER

THE WORLD'S GREATEST BUILDING PAPER

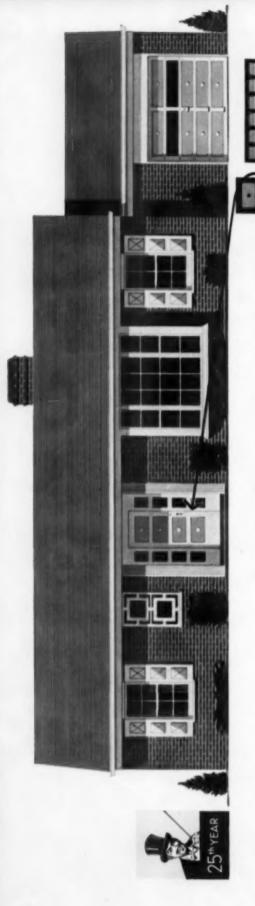
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... they can see it from the street

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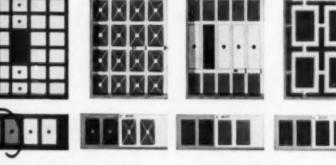
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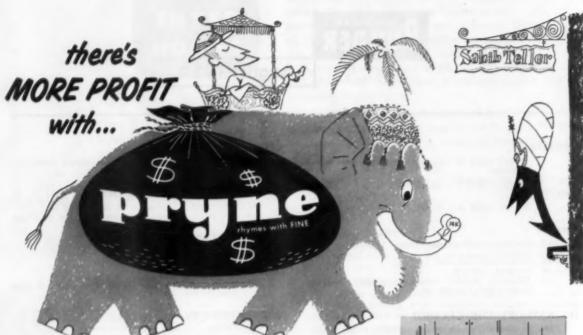
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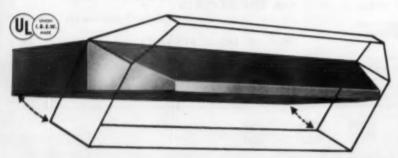
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# BUILDER

# There's more to the school problem than just school buildings

In the News section of this issue there is an account of a school funds ordinance adopted by the City of Park Ridge, Illinois, and an opinion of the validity of the ordinance, handed down by the Attorney General of the State of Illinois.

The Attorney General says ". . . it appears that the City of Park Ridge was without authority to enact Section 93-48 (requires subdivider or developer to pay \$300 per lot for subdivision school fund prior to city's approval of plat) of the ordinance and that such provision is invalid."

That is only the Attorney General's opinion, and it is reported that other Illinois cities with similar ordinances are proceeding with levies on builders and developers, and holding or intending to hold the money in escrow, presumably until a test case in the Illinois courts establishes or denies the right of a municipal corporation to levy a "pre-school" tax on a class of builders. Since the three hundred dollars levied by the Park Ridge ordinance must be passed on to the home buyer, the ordinance in effect taxes one class of home buyers for school facilities, and taxes them before the school facilities are provided.

If the Illinois Supreme Court upholds the Park Ridge ordinance, the decision in effect will say that the builder of new development homes must collect taxes in advance for new school facilities, the title to which and control over is not vested directly in the people who pay the bill. The effect such a decision could have on the accepted concept of school taxation is incalculable.

On the other hand, if the State Supreme Court should invalidate the Park Ridge ordinance, the growing problem of the municipal corporations and the development builders, to say nothing of the ultimate effect on the contract builder, has not been solved.

Basically, the problem is simply this: Community expansion is not new. In former periods of expansion, bond issues or increased school taxes have always taken care of the requirements. The bonding power of most municipal corporations has been exhausted. The taxing power has reached its limit, both the legal limit and the limit that citizens can endure.

The reason the tax limit has been reached is that the growth of a huge federal bureaucracy is tapping incomes to such an extent that very little is left for the municipalities and states. Certainly the public will not stand for another big local or state bite. If the fairly universal school problem is solved in the way the public has lazily allowed most of its local problems to be solved in the past quarter century, the answer will be another huge federal bureau siphoning more taxes for federal school aid.

We believe that neither of the decisions open to the Illinois Supreme Court will solve the basic problem or the immediate problem. The basic problem is whether federal bureaucracy, and its inevitable trend to socialism is more desirable than self government founded on individual and local responsibility, local autonomy, and the precedence of local taxation for local development.

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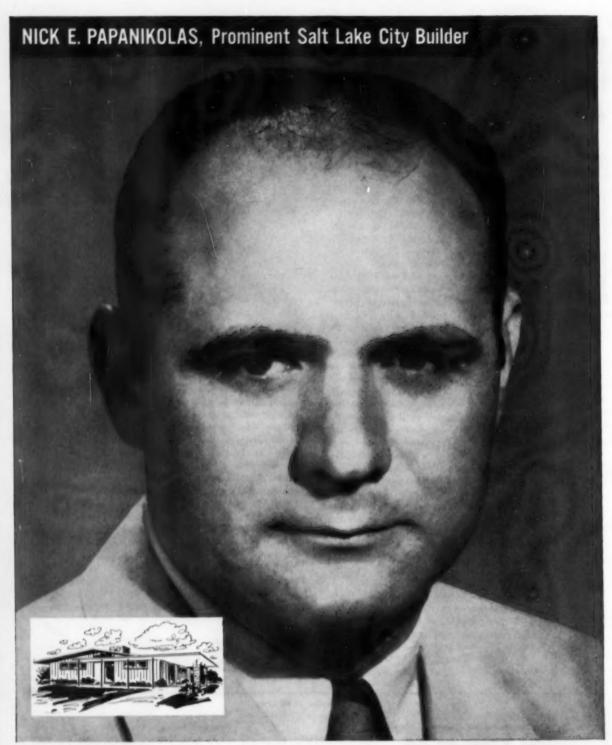
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POST

-gets to the heart of America

## Are We Really Over-Building?

By William C. Bober

New homes are going up this year at an annual rate of 1,400,000. Yet net increase in new families is less than half of that. Many persons therefore draw the conclusion we are over-building. Is this true OR

Have we struck a new market that has been consistently and immensely underestimated?

This writer is convinced the latter conclusion is correct. Although he recognizes there is some local over-building and that the no-downpayment, 30-year-payment clause of the Housing Act of 1954 has elements of danger, that does not alter the following:

There are entirely new angles to the housing market today. The fundamental background is TOTALLY different from before the war. The demand side is IM-MENSELY bigger than before the war. Yet, subconsciously, we still think of home-demand in prewar terms. We lag in our thinking. We have not fully grasped how fundamentally the United States has changed since the war. And, we do not fully realize that these changes inevitably make for immense corresponding changes in the demand for new homes.

#### Incomes tripled

Let's look at a few fundamental points that have totally changed the prewar picture:

(1) There has been a true revolution in income in the U. S.—not merely a markup of wages and prices through inflation. As example: Workers' weekly earnings in manufacturing have tripled since 1939 while living costs have

or are there NEW FACTORS such as the rapidly rising replacement market that make a greatly expanded volume safe and economically justified?

Here are seven basic changes that have revolutionized the prewar home market, now make it vastly different, vastly bigger.

only doubled, leaving the worker a large margin of real income (that is, after allowing for price-inflation) to spend on housing. This is a revolutionary change and it works out as follows.

In 1939 only 28% of non-farm families (by far the most important factor in housing demand) had an annual income of \$2,000 or over. According to the banker's rule of thumb (since monthly amortization of mortgage-principal became standard) this 28% could afford a new home costing 2½ times annual income, that is, a \$5,000 home. For that price a reasonably satisfactory house could be built in those days.

#### 71% can afford better home

Today, in 1955, it of course costs a lot more to build a home. The equivalent of the prewar \$5,000 house, somewhat smaller but far better designed and equipped, can now be built for \$10,000. That is  $2\frac{1}{2}$  times an annual income of \$4,000.

But today, 71% of all our 35,700,000 non-farm families are getting over \$4,000 a year and therefore can afford (according to standard banker's rule of thumb) a \$10,000 house—which is fully as satisfactory a small house as the

\$5,000 prewar house was in its day in 1939. In other words:

In 1939 only 28% of all nonfarm families could afford a reasonably satisfactory small house. Today, 71% of all non-farm families can afford a reasonably satisfactory small house. This constitutes a revolutionary change of the most far reaching importance in the matter of housing demand. It is a change that few people have fully grasped.

But today, considerably OVER HALF of all our non-farm families earn, not \$4,000, but over \$5,000 per year and can therefore afford a \$12,500 house. For that price the homebuilder industry can give excellent value in most parts of the country even at today's prices and wages.

Consider this: Over half the country's non-farm families can now afford a NEW home considerably better than a merely "satisfactory" house. No such situation had ever existed in the old days when almost three-quarters of all non-farm families could not afford any kind of new dwelling. There we have the basic dollar-and-cent reason why families by the millions now build NEW homes rather than move into old ones as in prewar.

CONTINUED ON PAGE 8

#### Are we really over-building?

Continued from page 7

#### Twice as many children

(2) This financial ability to build a new home is immensely reinforced by one of the most fundamental things that have been happening to this country. Namely, the spectacular increase in the child population since 1939.

In 1954 there were almost TWICE as many children born as in the average prewar year of the 1930's. In 1953 we had 12,000,000 more children under 17 than in 1939, And by 1965 (only ten years hence) so enormous is the level of births these days, we will have at least 26,000,000 more children than in 1939. We must therefore repeat ourselves in order to add up two factors:

(A) 71% of all our non-farm families can now afford a reasonably satisfactory new house, and 51% of all of them can afford a definitely satisfactory house (B) These families have to find space for the vastly increased number of youngsters to run around and grow. (C) RESULT: The spectacular migration to the suburbs. It is there where the great bulk of home building goes on.

People talk as if builders erect houses for speculation and then press an unwilling public to buy them. The reverse is the fact. Builders have been straining every nerve to put up houses where families by the millions INSIST on living.

#### People moving to new areas

(3) They no longer want to live in the older sections of the cities. Nor, for that matter, do millions of them want to live in the older sections of the nation. Side by side with the vast migration to the suburbs we have a continuous regional migration from farms, towns, and cities in the more developed parts of the U. S. to the Great Crescent, the rim of the country, that includes the West, the Gulf Coast, the Southeast, and the Great Lakes.

During this postwar boom from 1946 to 1952, according to an analysis made by FORTUNE, over one-half (or 51%) of all new non-farm single family houses purchased by people were in the West and South.

Thus side by side with the "income revolution" we are having a "geographical revolution" of the first magnitude in the matter of home demand.

Ever since the war, American families have been insisting on living where available homes were very few, that is, the surburbs, the West, the South, etc. And it is there, naturally, that houses had to be erected by the millions to satisfy the migrants' demand.

Thus, net increase in families is merely one, and a relatively small, portion of housing demand. The other and BIGGER portion comes from migration.

#### Cheaper to own than rent

(4) "When it is as cheap to build as rent, people build." That is an ancient maxim of the building industry.

Since the war, myriads of families have discovered they can own a NEW house in the suburbs where they WANT to live and bring up their children just about as cheaply as they could rent an OLD house in an older section of the city where they DON'T want to live. In other words, with the long repayment period of present-day mortgages, the monthly payments on a new, owned home are not substantially, if at all, greater than the rent for an old dwelling. Hence, why not build and own your home where you want your children to grow up? That has been, continues to be, one of the major dynamizers of enormous housing demand.

#### Are inflation conscious

(5) Home ownership as an inflation hedge: Here we have another powerful psychological factor that strongly reinforces the mere mathematical fact that a vastly increased number of families can afford new homes.

Only a decade ago, our people experienced the great inflation of a great war. Only five years ago they experienced the minor, though by no means insignificant, inflation brought on by Korea. Now, barely a day passes without newspaper headlines that suggest the possibility of another great war with its in-

evitable inflation.

Through a series of mass experiences, our people have become inflation-conscious. The war-engendered housing shortage is still fresh in their minds. So is the discovery that it took twice the money to build after the war. Home ownership has become the average family's inflation hedge. It is one of the main reasons for the tremendous popularity of owner versus rented homes.

#### Vets don't have to wait

(6) There is the draft, which has brought another revolutionary change into the home building picture. A million young men, all at the marriageable age, leave the armed forces each year. Since everyone of them is entitled by the Housing Act of 1954 to build without downpayment, you have almost a million new home prospects each year who no longer have to wait for years, as formerly, to save before they build. They can build immediately.

They can, without waiting, build a NEW house of their own in the suburbs where they want to live as readily as rent a home owned by somebody else where they don't want to live. And as practically every able-bodied male of marriage age is or will soon be a veteran, the great bulk of new families can start building with no, or practically no, downpayment.

As the Cold War and the Draft have become a "constant" in our lives, so likewise has this immense veteran's market become a constant —a permanent factor.

#### More old folks, too

(7) You read that, although we are building at an annual rate of 1,400,000 homes, net family formation this year will be only about 650,000 or so. Yes, but the latter figure (which is the increase in the total number of families) has become almost irrelevant.

Approximately 1,600,000 marriages will take place in 1955. Hence 1,600,000 new families will be formed this year. If this had been before the war, about 1,000,000 of them would have moved into OLD homes constantly being vacated by deaths and, to a much lesser degree, by divorce. But it isn't before the war!

Today, homes are not being va-

cated by deaths at the same rate as 20 years ago. There is, for instance, penicillin and the other antibiotics and what they have done to the pneumonia death-rate. Life expectancy has increased dramatically and the old folks don't die and leave homes vacant as fast as they used to.

#### Want to live in suburbs

But much more importantly: The young married couples (of whom there will be about 1,600,000 this year) don't want to move into old vacated homes which are mostly obsolete in design and equipment, and are generally in the older sections of cities and, also, in the older parts of the nation. As we have seen, they insist on moving into newlybuilt homes of their own in the suburbs or the West or the South or somewhere else.

In other words, you just can't get 1,000,000 out of the 1,600,000 newly married couples of 1955 to move into old dwellings vacated by deaths and divorce. You could before the war. But it isn't before the war! The very foundations of things have changed in the home market since Pearl Harbor.

Therefore the continually publicized figure of "only 600,000 net family formation in 1955" is irrelevant, immaterial, and meaningless in the face of the realities of today's home demand.

#### Old homes will be replaced

What then will happen to the vast number of old homes in the older sections of cities and the older regions of the nation which are being vacated by deaths and into which younger folks no longer move?

Many will be modernized and become the dwellings of older couples whose families have grown up or of childless couples. But the majority will be demolished—not immediately, but eventually because they have had their day, and because as a rule, they will stand in the way of the rebuilding of the cities imperiously demanded by motor age and civil defense. For a time, they will remain but their vacancy ratios will rise.

Because of this vast and unending migration that I have sketched, the national average of the vacancy ratios is CERTAIN to rise and will scare a lot of folks who will regard it as the meter of overbuilding.

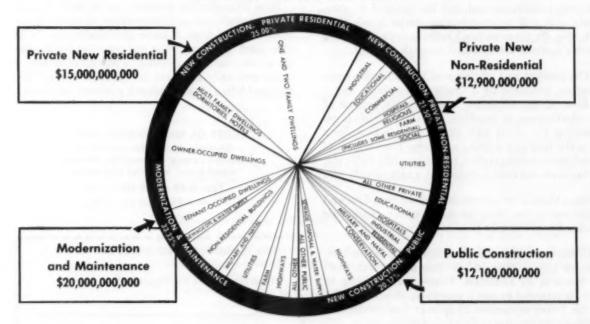
But that "national average" must be analysed. If it shows heavy vacancies in only the older areas where the young married folks no longer want to live, it will register, not overbuilding, but the REPLACE-MENT of old homes in old areas by NEW homes in NEW areas where people do want to live. In other words, the vacancy ratios will register progress and prosperity and the important replacement market.

#### "Enormously increased" demand

For the first time, in a big way, the home-building industry has a real replacement market which will gradually become as important as in the automobile industry. The old and largely obsolete American housing "plant" in the older dwelling areas is now in the first process of rapid replacement. That is a fact of the first order of importance.

Thus, in the opinion of this writer, we are not really overbuilding homes at all. We are merely satisfying an enormously inceased demand.

## HOW 60 BILLION DOLLARS OF CONSTRUCTION IS BEING SPENT THIS YEAR



TOTAL CONSTRUCTION PICTURE as revealed by chart shows why this is number one U.S. industry. New census data indicates greatly expanded modernizing and maintenance market, now estimated at \$20 billion. New residential runs a close second. These are 1955 estimates by W. C. Bober based on U.S. Cenaus, Bureau of Labor Statistics and Dept. of Commerce data.



The total amount of heat the summer sun pours down on a 1,000 sq. ft. roof of a house at noon on a clear day may run as high as 250,000 Btu's per hour. Some white shingles have been credited with the ability to reflect, outdoors, about 55% of the sun's rays, yellow 35%, green 15%, red 14%, blue 5%, black 4%.

White shingles won't always stay white, don't always harmonize with the desired color-scheme, easily look soiled. So despite the greater efficiency of white (which is true only outdoors), roofs may nevertheless be any color to harmonize with the building, its environment, and the tastes of its occupants, and still be considerably cooler inside than out; IF--- six (or even four) reflective spaces and reflective surfaces are installed beneath the roof.

The comfort and efficiency of this scientific combination, produced by 3 sheets of aluminum and 2 of fiber, air-spaced apart, is remarkable because of its effectiveness in repelling radiation which is responsible for about 93% of all heat in-flow down from the roof to the living quarters. The surfaces of the aluminum sheets reflect radiation with a 97% rate, and absorb and emit radiation at a rate of only 3%.

Since there is no convection in down heat flow, and slight conduction thru the multiple, low density air spaces, a triple barrier to heat in-flow is raised.

In winter, too, this form of insulation is effective, because 55% to 70% of heat flow upwards through air space is by radiation. Convection, ranging to 45%, is retarded by the 3 aluminum sheets and also by the 2 fiber separators. In up heat flow, conduction is also slight because of air's low density.

The best shingles or most beautiful paint job on the exterior or interior, will not protect against peeling paint, timber rot, and crumbling plaster caused by destructive condensation.... The 6-reflectivespace-aluminum-surface combination is almost completely impervious to water vapor and by its scientific construction minimizes condensation formation on or within it.

It is available in pre-fabricated form, ready to install, and is called Infra Insulation Type 6. More than 250 million sq. ft. of INFRA has been installed in the past 10 years.

How house-cooling systems can be made to cost less for installation and for operation by scientifically insulating buildings, is made graphically clear in an illustrated brochure "Five top priorities for designing an air-conditioned house," a reprint of an article which originally appeared in "House & Home." We will send it free at our expense if you mail the coupon.

#### COST OF EDGE-TO-EDGE INFRA

Multiple Aluminum Insulation installed in new construction between wood joists, material and labor

> Type 6-PS about 10¢ sq. ft. Type 4-PS about 8¢ sq. ft.

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Please	send: "Five Top Priorities"	
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Can typical new houses in Toledo, Ohio, be heated and cooled for \$120 a year? Tyler S. Rogers, technical consultant for Owens-Corning Fiberglas Corp. and former head of the Producers' Council, proposes to find out in a two-year test beginning this fall, in cooperation with members of the Toledo Assn. of Home Builders.

Builders would agree to sell the test homes to buyers permitting the study, according to the Tyler plan. Plans would be submitted for checking of insulation and equipment. Various sizes of homes and several types of heating-cooling arrangements are proposed.

Fidelity bond program has been increased from \$100,000 to \$250,000 by New Jersey Home Builders Assn., with \$50,000 limit for any one member. The program to insure home buyers against misapplication or misappropriation of deposits or down payments, has yet to have a single formal claim filed against it in the three years it has been in effect.

Local builders hotly deny report that Hartford, Conn., area is 5% overbuilt.

No one building good houses, priced right, has any trouble making sales, points out the Home Builders Assn. of Hartford County. "Indications are that this will continue in this area right through 1956."

Wisconsin Supreme Court has backed a town's right to set home design standards by overruling a circuit court decision which had declared unconstitutional a local ordinance at Fox Point, near Milwaukee.

Permit to build a two-story brick colonial house was refused under the local law which declared that no permit should be issued for any building unless its "exterior architectural appeal and functional plan will, when erected, not be so at variance with the exterior architectural appeal and functional plan of the structures already constructed in the immediate neighborhood as to cause a substantial depreciation in the property values of said neighborhood."

Police power could not be used for law essentially concerned with esthetics, the lower court held. Such power, it pointed out, is traditionally confined to promotion of health, morals and safety. Supreme court disagreed and cited several cases to show that this general rule was undergoing a change.

Chicago union plumbers' insistence that jobs have cast-iron soil pipe became one of the first problems of the newly formed Council of Home Builder Assns. Latter retorted that the city building code allows clay, concrete or cast-iron pipe and warned that any work stoppage by plumbers would be a violation of their contracts. Each member was urged, "to advise your plumbing contractor that you reserve the right as a free home builder to choose materials for the construction of your homes in conformance with the building codes under which you operate."

Move toward code uniformity is progressing steadily in New York State. In 3½ years of its existence, the state building construction code has been adopted by 87 municipalities which previously had no regulations of any kind and by 78 other communities which are using the state code as an alternate to, or replacement of, local regulations. They represent 39 per cent of all local governments within the state enforcing some kind of code.

This response to the state code, said Edward J. McGrew Jr., chairman of the State Building Code Commission, "reflects the earnest desire of municipalities to give their citizens the protection afforded by a modern building code, and to participate in the pioneering work of the state in bringing about code uniformity on a voluntary basis."



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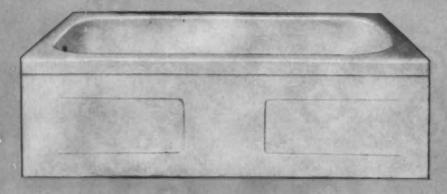
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The Gateway (4½' or 5' long, 29" wide, straight front). Where cost and space are vital factors, you'll find this new Eljer model your perfect, most economical alternative. Compact, attractive design.



# **NEWS**

#### Congress Trims Self-supporting FHA's Budget

The Federal Housing Administration will have to get along with 13½ per cent less money than it anticipated for operating expenses during the 1955-56 fiscal year.

Although the agency's profit from fees and premiums to be collected in the year is estimated at \$150,000,000, Congress refused its budget request of \$45,000,000, pruned it to \$38,900,000. Field office funds were cut from \$38,350,000 to \$33,000,000; administrative funds from \$6,650,000 to \$5,900,000.

Only recently, FHA had overcome long processing delays in handling a great increase in applications for mortgage insurance through considerable overtime work and an augmented staff. Since July 1, complaints of a processing slowdown have already been reported, with business nearly double that of a year ago.

#### Processing Delays Returning?

The outlook, in the eyes of an FHA official who would not permit use of his name, is one of serious loan processing delays for contractors and buyers, particularly in the Southwest and Pacific Coast regions. He said the cuts meant loss of about 1,100 employees FHA had or hoped to hire.

Meanwhile, he pointed out that Congress was considering bills to put cooperative housing back on full schedule and to increase urban renewal operations, which would further cut FHA manpower available for home loan insurance work.

"It is an old thing that selfsupporting FHA should be treated less favorably in being allowed to spend its own money than taxsupported agencies are," commented the Washington Letter of the National Association of Home Builders.

#### HHFA Funds Increased

HHFA fared much better. Not only was \$1,400,000 restored to its budget, but it gained \$350,000 additional funds.

Administrator Albert M. Cole of HHFA declared at a July 12 press



#### **Talking Over New Housing Legislation**

With perennial pipe in hand, Earl W. Smith, NAHB president, exchanges views with Chairman Brent Spence (D.-Ky.) of the House Banking and Currency Committee, and George Goodyear, chairman of the NAHB division of government affairs, prior to committee hearing

conference that Congress would pass a housing bill closely in accord with the President's wishes, including the provision for 35,000 units of public housing for each of the next two years. The House had approved that number but the Senate had previously set a total of 135,000 units annually for four years.

Cole again expressed his opposition to separation of the Home Loan Bank Board from HHFA and denied reported rumors that he would resign. Instead, he said he was planning a tour around the nation covering areas where urban renewal projects are under way.

#### Last-minute Action by PHA

One week before fiscal year 1954-55 expired July 1, Public Housing Administration had placed under contract only 142 of the 35,000 rental housing units authorized by the Housing Act of 1954, At the end of the week, the number had skyrocketed to 29,509.

Said PHA Commissioner Charles E. Slusser: "PHA and the local housing authorities were so restricted with red tape that the most optimistic press estimate was that there would be only 10,000 units under contract by the June 30 deadline of the 1954 act.

"This would have been a creditable achievement, but not one I could support administratively. Despite the existing circumstances, I felt that we should make every effort to see that, whatever the odds, we got under contract as many of the 35,000 units Congress authorized as was possible. . . Frankly, we have used an axe on the red tape while adhering strictly to the letter of the law."

#### 129,000 Starts in June

New housing activity continued its strong pace in June with 129,000 starts, according to the Bureau of Labor Statistics. This was 3,000 units below May, high month for the past four years, but 12,500 ahead of June, 1954. It moved the seasonally adjusted annual rate for June upward to 1,320,000, first increase since March.

During the first six months, total starts amounted to 679,300, or 109,800 ahead of the comparable period last year. The new figure included a revised report for March in which BLS reduced its preliminary finding 3,200 units to 113,800 starts.

Included in the starts for June were 2,500 public housing units, which increased the total for six months to 8,800 units.

#### Month Set High Value Mark

New construction outlays totaled \$3.8 billion, highest monthly figure on record, according to a preliminary Labor-Commerce report. Volume of new construction for the first half of the year was \$19.1 billion, also an alltime high. Seasonally adjusted annual rate of \$41.7 billion for the period fell just short of the \$41.8 prediction for the year in a recent revised forecast of the departments. Previous yearly high of \$37.8 billion was set last year.

The new forecast takes into account moderate cost increases, assumes mortgage funds will be adequate, consumers' disposable income will remain at peak levels throughout the year and that nationwide supplies of all building materials should be sufficient to meet the demand, despite recent spot shortages of cement and gypsum wallboard.

#### Business Bellwether

Present trends indicate the current business boom will continue well into 1956, with the construction industry acting as a "business bellwether," prediets the Chamber of Commerce in its quarterly report.

Among several factors pointing toward a continued rosy outlook for home building, the Chamber cited:

- · Easy credit, partly due to housing legislation.
- · Enormous population shifts from farm to city and to the milder climates of the South and Southwest, Gulf and West Coasts.
- · Growth of the middle class (Government reports show that families with incomes over \$4,000 in current dollars have increased by 70 per cent since 1947).
- · Tremendous interest, particularly by women, in new designs and layouts for homes.

#### Sharp Gain for Air Conditioning

With sales of central air conditioning early this year approximately double those of the same period in 1954, Cloud Wampler, chairman and president of the Carrier Corporation, has revised his forecast of 125,000 home installations this year to 150,000

By the end of 1956, he anticipates about 3.000,000 homes will be equipped with complete or partial air conditioning.

Construction projects used 22 per cent more brick in the first quarter than in the first three months of 1954, according to the Structural Clay Products Institute.

#### **VA Extending Records**

Veterans Administration received 58,864 applications for home loan guaranties in May, 10 per cent more than the April total and 30 per cent over the total for May, 1954. May was the tenth straight month the rate topped the 50,000 mark.

During the same month, VA received appraisal requests for 108,200 homes, of which 64 per cent were from builders for proposed new houses and the remainder were for existing homes.

A new law puts three types of GI

#### DICKERMAN'S COLUMN

By John M. Dickerman, Executive Director, National Assn. of Home Builders

## **FHA Reserves Effectively Answer** Critics Seeking to Kill Agency

Critics of the government housing insurance programs found little comfort in the factual report recently issued by the Federal Housing Ad-

ministration on the soundness of its insurance reserves. The study underscored the fact that the FHA reserves show an excellent relationship to the agency's insurance requirements.

The significance of this should not be un-

derestimated. This relationship of reserves to insurance requirements affects not only the home building industry, but has a definite bearing on the national economy to which housing has contributed so much in the postwar years. It effectively answers the critics of FHA who seek, for one reason or another, to eliminate the federal housing insurance programs.

The magnitude of the influence which the FHA insurance programs have had on the housing industry is evidenced in the fact that the agency, at the time of the report, had \$18.2 billion insurance in force. The earned

surplus amounted to \$390 million. This surplus, together with the value of the insured properties and the built-in safeguards of FHA's unique debenture system, establish a solid foundation for future operations.

#### Largest of 11 Funds in Balance

Altogether, FHA has 11 insurance funds, the largest of which, the mutual mortgage insurance fund, had approximately \$10.5 billion outstanding and \$215 million in reserve. In the judgment of FHA officials, this fund has reached a "balance status," and is in a position where it could withstand a depression of the magnitude of the

The second largest, the Title VI fund, has \$4.5 billion outstanding and has an earned surplus of \$109 million. which is well under the \$185 million that FHA feels is required. However, it should be noted that no new insurance is being written under this title, and that every month the contingent liability is being reduced and the reserves are being built up.

Two of the funds which are substantially lacking in reserves are the military housing fund and the national defense housing fund. Both are relatively new and have not yet had adequate time to build up reserves. Two other major funds, the housing insurance fund and the war housing insurance fund, while not yet in a "balance status", have relatively substantial reserves.

#### Further Improvement Ahead

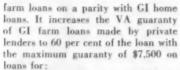
I think that in the light of the generally healthy economic conditions now prevalent throughout the nation and the good prospects for the future. we can look forward to a substantial improvement in the FHA reserves. FHA has been increasing its reserves during the course of the last three years and there is no reason to believe, short of a major depression which no one expects, that the improvement should not continue.

It should be a source of satisfaction to everyone interested in the home building industry to know that even today the mutual mortgage insurance fund, which accounts for more than one-half of the FHA insurance outstanding, is in shape to withstand, should such an occasion unfortunately arise, the impact of an economic crisis, I can say without qualification that the confidence of the National Association of Home Builders in this agency. which has contributed so much to good housing for the American people, certainly has not been misplaced.



#### 'Big Three' of Plywood Distributors

New officers of National Plywood Distributors Assn., elected at annual meeting timed with fir plywood "golden jubilee" at Portland, Ore.: Leonard E. Hall (center), Portland, president; Earl G. Thuresson (right), Chicago, first vice president; Theodore Merrill, Newark, N. J., second vice president



 Purchase of a farm on which there is a residence to be occupied by the veteran. The guaranty would cover not only the farm and residence but include all other buildings which are considered part of the realty.

 Construction of a farm residence to be occupied by the veteran on land owned by him.

 Repair, alteration or improvement of a farm residence owned by the veteran and occupied by him as his home. Such changes must protect or improve the basic livability or utility of the farm residence.

VA marked 11th anniversary of GI Bill June 22, pointing out that of 12,000,000 World War II veterans, 3,-700,000 had used its loan guaranty facilities to buy homes. So far, it continued, nearly 900,000 loans have been repaid in full, while defaults have numbered only 37,000, less than 1 per cent.

#### **Community Facilities**

Suburban communities where large home projects are bringing about great changes in population are seeking out various means of relief for distressed school districts.

Recently Park Ridge, Ill., a northwest Chicago suburb, adopted a local ordinance requiring each project builder to pay into a "subdivision school fund" the sum of \$300 per lot at or prior to approval of his plat. The money was to be held in escrow until a new school or addition was built



#### Named to Plywood 'Hall of Fame'

Three men who received serolls of honor for leadership during first 50 years of fir plywood (from left): Don L. Davis Sr., Chicago, Aetna Plywood & Veneer Co.; W. E. Difford, Tacoma, Wash., Douglas Fir Plywood Assn; W. H. Hunt, New York, accepting for the late Lawrence Ottinger, U. S. Plywood Corp.

within three-quarters of a mile of any part of the subdivision. If no such facilities were built within five years, the money was to be returned.

Upon request of the Chicago Metropolitan Home Builders Assn., Vernon L. Nickell, superintendent of public instruction, asked Latham Castle, state attorney general, for an opinion on the validity of the law.

Castle replied that an examination of statutory provisions and Supreme Court decisions "reveals no express power vested in a city to require a subdivider to pay \$300 for school facilities on each lot in the subdivision. I do not believe such a charge for school facilities could be upheld as an incidental power of those granted. . . . It appears that the City of Park Ridge was without authority to enact Section 93-48 of the ordinance and that such provision is therefore invalid."

Park Ridge officials accepted the ruling and ordered money paid into the fund returned. John R. Downs, executive vice president of the Chicago Metropolitan Home Builders Assn., commented: "We feel this is a most important document and one which should have a far-reaching effect on the serious problem facing the merchant home builder and the school districts. Certainly, it should serve as an active ingredient to promote quiet and dispassionate deliberations on this broad problem which faces our industry."

Meanwhile, other northwest Chicago suburbs passed ordinances requiring \$300 per lot for schools before issuing building permits. Some applied this requirement to builders on individual lots as well as to developers. They argued that in most cases they did not collect taxes on the improved property until the house had been occupied about a year.

After the ruling was handed down, Palatine, III., officials called a special meeting and announced their decision to stand pat on the \$300 requirement. It appeared at first that builders who would not comply might face long



#### Regional, Local, National

Familiar setting for NAHB's Earl W. Smith (right) during presidential tour across the nation: regional vice president, John R. Worthman (left), Fort Wayne, Ind.; local chapter president, George Arquilla, at dinner meeting of Chicago Metropolitan Home Builders Asan.



#### **Above Grade and Underground**

Owner Robert Dillon (left) and tenant, A. P. Stewart, "trimming" the roof of his home in Logansport, Ind. Flourishing lawn is growing in a foot-thick layer of topsoil

delays in construction; later, that a test case in court would be inevitable.

#### **VHMCP Begins to Roll**

After a slow start, the Voluntary Home Mortgage Credit Program announced it had placed 1,718 home mortgage loans by June 15, with two-thirds of the deals arranged during the first two weeks of June. The agency was established by the Housing Act of 1954 as a clearing house for referral to private lenders of FHA and VA

applications from small towns and remote areas where sufficient financing was not available through local channels. It also acts on loan placement for minority housing in any area.

HHFA Administrator Cole, chairman, said heaviest concentrations of loan applications and placements were in the South and Midwest. Of 16 regions, the Nashville, Tenn., office placed the most loans: 194. Chicago was next with 181, Charlotte, N. C., third, with 168.

#### **Uses of Tile Filmed**

A 21-minute color film, with sound, describing several basic design concepts of the modern home, has been prepared by the Tile Council of America. Creative uses of ceramic tile in kitchen and bath are featured. Work shown includes that of architects Richard Neutra, George Nemeny, George Nelson, Edward Stone, Marcel Breuer and Pietro Belluschi.

The council reported the sound-slide 35-millimeter film had been prepared as a public service to building professionals.

#### **Asbestos Group Elects**

E. J. O'Leary, vice president and general sales manager of the Ruberoid Co., New York, was elected president of the Asbestos-Cement Products

Assn. at its 18th annual meeting held June 21 in Absecon, N. J. He succeeds Ernest Muehleck, Keasbey & Mattison Co., Ambler, Pa.

John Brown, vice president of the National Gyp-



O'Leary

sum Co., Buffalo, was chosen as vice president. Re-elected were R. J. Tobin, Tile Roofing Co., Stratford, Conn., as treasurer, and Chester C. Kelsey, New Canaan, Conn., as secretary. Kelsey is association manager.

#### DEALER'S VIEWPOINT

By H. R. Northup, Executive Vice Pres., National Retail Lumber Dealers Assn.

# Six Widely Divergent Clinics Will Feature NRLDA Exposition

Those dealers who attend NRLDA's exposition in Cleveland during October will have to do some careful planning in order to be sure that their

time is spent to best advantage. Six clinics dealing with six separate subjects will be conducted during a four-day period and it is going to be impossible for any dealer to take in all of each outstanding clinic, even if he stays



Northup

in Cleveland from Tuesday morning to Friday evening.

The six subjects—materials handling, mortgage and time payment financing, competent house parts, store layout and display, developing the farm market and correlating advertising and sales—cover a broad field of interests, but each one is being divided into well-defined parts so that a dealer can devote his time to those specific topics in which he is most directly interested.

Thus, any dealer can spend all of his time in three or four of the clinics, taking in all or almost all of each one, or he can attend selected parts of all six, depending on his own personal preferences.

Payment of one modest fee will entitle a dealer to attend every clinic, so that he can move from one to another at will, attending what appears to him as the best of each.

Finding time to visit the manufacturer's product exhibits will present no problem at all, because the exposition will be open during many hours when no clinics are being conducted. Moreover, the exposition and the clinics are being held in the same building-Cleveland's Public Auditor-

A wide variety of patterns and devices will be used in conducting the clinics. Some will use live demonstrations, panel programs and speakers. Others will use movies, slides and special exhibits. Some will use all of these methods or whichever are most appropriate.

The length of individual clinics will vary from as few as six to as many as 16 or more hours. Some clinics will be repeated several times, if necessary, in order to accommodate all of the dealers attending the exposition.

Even so, about the only way for any one yard to take full advantage of all clinics is for several executives and employees to divide up the subjects and make out a schedule which covers the whole program.

Exact dates and hours of each clinic will be announced well ahead of time so as to enable dealers to do their scheduling before they leave home.

#### NORTHERN NEWS ..

# Chicagoans Form Builders' Council of 2400 Members

Presidents of four Chicago home building organizations signed a "unification document" last month to bring more than 2,400 members under a single banner: the Council of Home Builders Associations.

Objectives of the new central organization, as outlined in the document, are "to consider and take action on matters of general concern to all member associations and organizations, including problems of legislation, public relations, labor relations, governmental regulations, mortgage finance and research affecting the home building industry... The council will take such steps as are appropriate to implement its decisions."

John R. Downs, executive vice president of the Chicago Metropolitan Home Builders Assn. who is credited with "fathering" the idea, declared that with the four organizations united in their efforts, "all matters of concern . . . will be expedited in a manner satisfactory to every segment of the industry."

The four groups and their presidents are: Chicago Metropolitan Home Builders Assn., George Arquilla; Southwest Suburban Builders Assn., Albert J. Tallarico; North-West Builders Assn., Don Goyette, and South Side Builders Club, Robert H. Junge.

#### What Buyers 'Vant

Wichita, Kans., has scheduled about 60 houses for a special National Home Week showing, but all eyes will be especially focused on the Wichita Assn. of Home Builders



#### **Detroit Testimonial**

Immediate past president John D. Harrison receives plaque at annual banquet of Builders Association of Metropolitan Detroit from his successor, Webb Coe. Earl W. Smith, NAHB leader, is at left



#### **Four Chicago Associations Join Forces**

Signing "unification document" organizing the Council of Home Builder Associations are the presidents of Chicago's four largest home building groups (from left): Robert H. Junge, South Side Builders Club; George Arquilla, Chicago Metropolitan Home Builders Association; Don Goyette, North-West Builders Association; Albert J. Tallarico, Southwest Suburban Builders Association. Thomas Breen, Chicago Metropolitan HBA vice president and a prime organizer of the movement, looks on

new research house. It represents "what the buyer wants," consensus of opinion among many persons after they had visited last fall's research home. Most of all, they wanted a larger house: more square footage for the money, particularly in the \$12,000 to \$15,000 and \$15,000 to \$20,000 price ranges.

Majority of those polled said it was worth 10 per cent more to have a basement, 8 per cent more for brick veneer, \$800 more for air conditioning, \$12 a month more for ten years to have paved streets rather than sanded streets with grass gutters. They preferred wood floors with carpeted living rooms, vinyl in kitchens and baths; ceramic tiled and compartmentalized baths, natural painted woodwork. Features most important were at least one and one-half baths, recreation room, installation of a disposer. Most preferred to do their own landscaping.

Another survey, taken by Alexander Summer Co. in a questionnaire distributed to northern New Jersey home buyers, found split-level and ranch-type layouts preferred, provided they had center halls and at least one and one-half baths. Largesized bedrooms were considered almost a "must." Those who wanted Cape Cods wanted at least one finished bedroom on the ground level to permit one-floor living. . .

#### New School for Lu-Re-Co

Lu-Re-Co Management and Sales Institute is being organized at Champaign, Ill., to train lumber yard personnel as heads of separate Lu-Re-Co departments. C. A. Thompson, executive committee chairman of the Lumber Dealers Research Council, is planning the seminartype instruction course with three University of Illinois professors: James T. Lendrum, director, Small College of Commerce, and Robert G. Homes Council; Robert O. Harvey, Seymour, director, Bureau of Business Management Service. . . Northern Illinois HBA, a Chicago Metropolitan HBA affiliate, has appointed Robert E. Langguth as executive secretary. Except for army service, he's been a salesman for Better Homes Construction Co., Oak Park, since 1939. . . First report from HBA of Greater Boston after Charles R. Bragg was named managing director, indicates that builders will erect about 500 fewer homes this year in suburbs within a 15mile radius due to land scarcity and costs, but will more than make up the difference in the outlying towns.



0

Langguth

Brage

. . . Trevor Guy, registered architect and engineer, has been appointed technical director of HBA of Greater Cleveland, according to word from William Hanna, executive vice president. . .

Bill Rascher, St. Paul HBA program chairman, has lined up a new summer attraction: a 3½-hour moonlight sail on the Mississippi aboard the "Donna Mae." The big cruise ship was chartered for 100



#### **Program Wins Vets' Praise**

John S. Wright, executive vice president, New Jersey Home Builders Assn., receives annual award of Amvets (American Veterans of World War II) for outstanding service in veterans' affairs. Charles Sullivan, national executive officer and New Jersey awards chairman, made the presentation at convention in Asbury Park

couples on August 10. . . Trumbull County, Ohio, has been added to the jurisdiction of the HBA of Mahoning Valley, Youngstown. . Northern Sash & Door Jobbers Assn. has picked Chicago's Edgewater Beach Hotel for its 14th annual meeting, Oct. 3-5. . .

#### **Land Book Prepared**

Members of the Builders Assn. of Metropolitan Detroit have a new, 274-page land development manual at their disposal. According to Webb H. Coe, president, it tells how to select the best land for subdivision purposes and how to develop it properly in the most economical way, discusses finish grading, lot and street grading, location and grouping of homes. . . Edward Rose Co. was designated as the builder of Detroit's "Ideal Home for 1956." William and Aaron Gershenson who have built several shopping centers in Michigan and Ohio, have formed A&W Homes, Inc., to build their first home community of 97 homes near Greenfield, Mich. First models are expected to be completed in September. . .

Whenever Detroit's city fathers have a real problem in planning, it seems they turn to Edward Kuhlman, Detroit' 'Bildor.' He has just been elected president of the City Plan Commission for the third time. Since 1943, he's been a commissioner, reappointed four times by three different mayors. . Michigan Assn. of Home Builders has presented its junior scholarship award for 1955; to Dalton C. Rumsey, a Michigan State student and president of



#### Milwaukeeans Off on a 'Light' Journey

Large delegation from Milwaukee Builders Association embarking for Cleveland on chartered plane. Members were first taken on specially conducted tour of the Pitney Glass Works, later received instruction in residential lighting at the General Electric Lighting Institute in Nela Park

Sigma Lambda Chi, national scholastic honorary building and building materials merchandising fraternity.

. . Last possible subdivision in Shaker Heights, Ohio, fashionable Cleveland suburb, has been platted. Building Commissioner W. E. Arnold said minimum frontages will be 100 feet and proposed one-story homes will cost \$35,000 and up. Louis Luxenberg is the builder.

Elmer awards (inflated plastic ducks) go to the four top winners of Columbus, Ohio, HBA membership drive: Ken Corrigan, Bill Loving, F. M. Donelson and Roy Haddox Jr. Fate of the live "Elmer," who stayed as guest with several builders until they produced a new member,



Kuhlman



Rumsey

was in doubt... Metropolitan Omaha is doubling its 1954 housing pace. In first six months, 2,042 units were started, compared with 1,010 last year. . Nathan Manilow, 1954 NAHB vice president who has been recuperating from the serious illness which felled him last fall, reports his Highland Park, Ill., project is selling homes at a 15-a-month pace, but will take two years to complete. He has just opened a \$50,000 sales office on the site...

#### **Prefab Pace Quickens**

In first six months, National Homes turned out 9,569 homes units. 28 per cent above last year's mark and almost equal to the full output of 1950. James R. Price, president, reports houses are coming off production lines at the rate of 88 a day in main plant at Lafayette, Ind.; 42 a day at Horseheads, N. Y., branch. . . HBA of Northern New Jersey, has moved its office from Hackensack, N. J., to 884-56 River Road, New Milford, N. J., in the new Brookfield shopping center. . . Evansville, Ind., HBA, has named Wayne Kuhlenschmidt, 17-year-old student, winner of its 'Home of the Year' design contest and awarded him a \$500 scholarship. Robert Storey is building the house from his designs in the South Brentwood subdivision for showing during National Home Week. Roland Salk of the Cardinal Construction Co. is building the second place home, designed by Bob McClary. Association plans to sell both houses after the show. . .

Udall, Kans., wiped out by a tornado (American Builder, July 1955, page 17) and started on the road to recovery by the Wichita Assn. of Home Builders, now envisions doubling its population. With loan money made "easy" because the FHA disaster loan clause was invoked, 18 new homes were under way quickly, many more about to start. Builder Charles W. English predicted the little town of 600 would be replaced by one of 1,500. All but 30 of its 170 homes standing before the tornado were demolished.

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940 ARLINGTON AVE. CHURCH ROAD DAKLAND 8, CALIF. BRIDGEPORT, PA.





# New Oliver Jet Trencher for OC-3 Loader hooks up or detaches in 90 seconds

#### Exclusive 2-point hitch does the trick!

This new Jet Trencher is the perfect addition to the famous Oliver OC-3 Loader. It digs to 12 feet and lifts to 11½ feet—adds extra versatility without limiting tractor maneuverability or loader operation.

The exclusive hydraulic 2-point hitch makes hookup and removal a simple, one-man operation from the tractor seat. When the trencher is removed, the hitch holds the loader counterweight or quickly takes a number of handy attachments—scrapers, scarifiers, etc.

All new in design and construction, the Jet Trencher places all stress and strain on the trencher frame, not on the tractor, Its new mounting, offset to the side of the tractor, gives unmatched visibility and permits close parallel digging to walls, foundations. Full 180° boom swing gives straight side dumping.

Working from the loader hydraulic system, the Jet Trencher has powerful down pressure for digging through tough soil. Hydraulic control gives smooth, cushioned operations and insures long-life, low-upkeep operation. See this new trencher and OC-3 Loader. Ask your Oliver Industrial Distributor for a demonstration.



Hydraulic 2-point hitch is adjusted to fit slots on sides of trencher as tractor is backed into position. Snap-on fittings connect hydraulic lines—seat is swung around and trencher is ready to operate. When not attached, trencher rests, as shown here, on stabilizer blade and bucket.

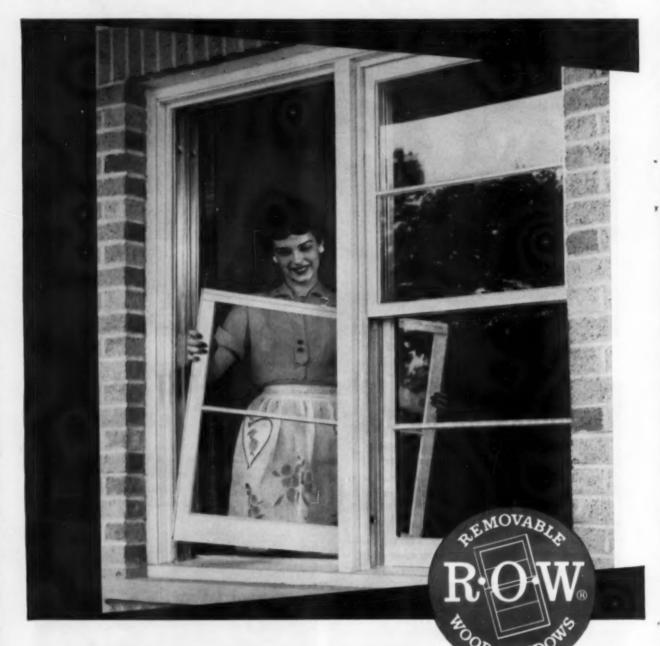
#### THE OLIVER CORPORATION

400 West Madison Street, Chicago 6, Illinois



a complete line of industrial wheel and crawler tractors

## THEY CHOSE THE HOMES



R·O·W windows outsell the next most popular windows by a wide margin. That's important to builders because buyers look for R·O·W windows when they're house hunting. They appreciate the lift-out feature and the comfort and economy of a tight seal. Home prospects like the warmth of residential R·O·W windows, too, It pays to install R·O·W double-hung wood windows.

LIFOLOX ON BALANCE

 $\mathbb{R} * O * W$  is the registered trade-mark of the  $\mathbb{R}, O, W_*$  finies  $\mathbb{Q} g_*$ 

See your local lumber dealer or write

R.O.W. SALES COMPANY, 1365 ACADEMY AVE. . FERNDALE 20, MICHIGAN

## WITH LIFT-OUT WINDOWS



See your local lumber dealer or write

R.O.W. SALES COMPANY, 1365 ACADEMY AVE. . FERNDALE 20, MICHIGAN AUGUST 1955

#### American Builder selected HOUSE OF THE MONTH



Sloping lot gives two-level living

## Shrewdly built ... for plan, price, appeal

Fontana-on-Geneva Lake, Wis.

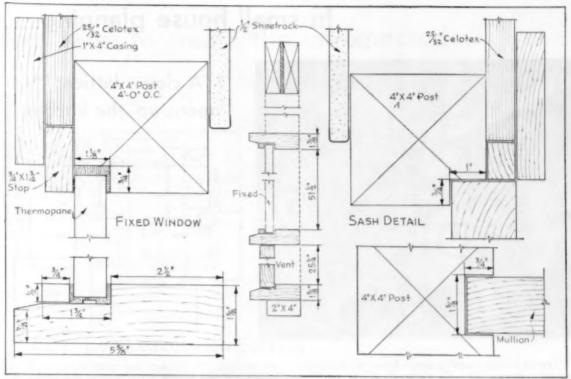


Combining modern construction techniques, up-to-theminute design and brand name products has proved to be a winning formula for Arthur B. Jensen of rural Walworth, Wisconsin. A builder with 35 years of experience, Jensen is offering this 24x40-foot house which features an open beamed ceiling and window wall in the living room, a convertible room with folding wall for use as den, dining room or third bedroom, and a recreation room and garage on the basement level for \$14,800 on the owner's lot. With lot in the builder's subdivision and a complete parcel of appliances the price is \$17,600.



Open planning for kitchen-living space combines

#### from the NORTH





#### TWO WAYS TO SAVE ON COSTS

This structural window system costs Jensen about \$80 for the full floor-to-ceiling window, and includes labor, material, screens, hardware and operator. The saving makes possible use of insulating glass throughout entire house. The 4x4's are placed 48-in. o.c. Ventilating portion of the window uses a standard frame designed for the  $42\frac{1}{2}$  x  $22\frac{1}{2}$  insulating glass

Sliding doors in bedrooms cover entry opening as well as closet opening. This eliminates entry door, jamb, butts, stops, trim, framing and drywall. Jensen simply runs the sliding door track hardware the full length of the wall, to accommodate Novoply 4-foot panel doors



with convertible room for flexible arrangements



## In small house planning ...



## 1 A clever lattice 'opens up' the kitchen



Skillful kitchen planning accomplishes two important things in this small Covina, California, house: it makes the room attractive enough to be brought out in the open and creates the effect of greater space.

Separating kitchen and dining room here is a smart and practical knick-knack shelf. While the two rooms are clearly divided, good light and an open feeling are retained. The kitchen also opens on the front entrance hall and has an entry door at the side of the house.

Homes in the development, Arrow Square, sell for \$11,950 to \$12,250 with three bedrooms and den (or four bedrooms) and two bathrooms. The Larwin Company is the builder.



# 2 Kitchen island off living room mainland



In this out-of-the-ordinary plan the kitchen's actually an "island" off the living and dining rooms.

To the rear of the island and partly concealed is the oven-range section, while opening onto the combined living-dining area is the breakfast bar.

Cabinets and plastic-topped counter occupy one wall of the kitchen's "mainland"—laundry and service facilities and a rear yard window occupy the other.

The L. E. Dixon Co. of Los Angeles is offering this home in their Rancho San Jose subdivision Puente, California, about 20 miles from downtown Los Angeles. The price range is \$13,100 to \$14,200. Thirty-one homes were sold the first five days of public showing; 900 are planned in all.

## four ways to create the unexpected





#### 3 Extra good circulation pattern

A foyer combines with a hall to protect the living room from traffic to and from bedrooms, bathroom and kitchen in this Rochester, New York, house. Beyond the kitchen is the garage, with ready access to the kitchen at the rear—another traffic feature homemakers like. This house of 1,020 square feet is being offered by Clover Hills Development, Inc., in their Landing Road subdivision. Prices start at \$17,300 and include an 85x125 lot, with all improvements.



Exterior has green cedar shakes, brick wainscot and green asphalt shingle roof



#### 4 A big TV room that's extra

The 14x20 TV-den room in this Jackson, Mississippi, house doesn't have to double as a bedroom but has major importance in its own right. It is very well oriented to the rest of the plan, even has an outside entrance of its own. The house is a 1,498-square foot

model shown by builders Woodrow Cole and Sim Kelly during Jackson's spring Parade of Homes. The price tag was \$15,600, with a lot 90x150. Twelve sales resulted. Other features were colored Youngstown cabinets and dishwasher, Marlite wainscoting in kitchen.

#### American Builder Selected IDEAS IN ACTION



# Split-level wins in a conservative market

#### Pittsburgh, Pa.

This split-level, the "Trendera," took the blue ribbon for its price class in a Parade of Homes sponsored by the Home Builders Association of Metropolitan Pittsburgh. The contest for the models shown was conducted by a Pittsburgh daily newspaper.

Advertised as "the contemporary version of a two-story house," the design generally found good acceptance in an area where "modern" architectural styles usually don't meet with wide public favor. It sold for \$18,000 right after the exhibition was opened.

Among the popular features of the plan were the good-sized entrance hall between the two levels, the 28x15 living-dining room and compartmented bathroom.

The builder, Edward M. Ryan of Pittsburgh, who principally does custom jobs, sold three houses from the Trendera model. Lou Valentour, Pittsburgh, was the architect.



Series of windows at rear looks out on area to be landscaped for patio

#### BRAND NAME PRODUCTS USED

BRAND NAME PRODUCTS USED
American-Standard hoating equipment
American-Standard plumbing fixtures
Coletex waliboard
Congoloum-Noirn lineleum and tile
Crawford garege door
Donley ficeplace damper
Fonestre steel windows
Formica countor tops
G-E gerbage dispeser
G-E gerbage dispeser
G-E washer
G-E washer
G-E washer
G-E washer
Gree bathroom cabinet
Modernfeld doors
Thermopone insulating glass



First floor plan: steps lead to living room from entrance at street level



A feature of the upper level: study with folding door for optional use as bedroom



Built-in television set and drawers save space in master bedroom



Breakfast bar overlooks family room. Unusual feature: drinking fountain



Durable dark plastic gives a wood paneled effect in master bathroom



Boy's bedroom provides built-in desk, handy folding doors for closets



Glass doors in family room open onto



# National Brands Home . . . an advertising "natural"



#### Houston, Texas

The cooperative promotion of this "National Brands Home" in Braeburn Valley subdivision, Houston, paid solid advertising dividends to all concerned—builder, developer, sub-contractors, distributors and manufacturers.

Response to the advertising was excellent. Police had to help with auto traffic the first day of open house. Interest was sustained during the three weeks the model was shown.

Occasion of the promotion was opening of the Braeburn development where house prices range from around \$27,500 to \$42,000. The model shown here was built on a

2/3-acre wooded lot using only nationally advertised materials and equipment.

The home was built by the Golgren Corporation for the developers, Plumb-Mitchell-Gracey. Matt Howard Jr. and Associates were the architects. All are of Houston.

The National Brands Home was designed to capture public attention with a veritable "jackpot" of ideas and extras. Highlights included:

A combination kitchen and family room, 2½ bathrooms, year-around air conditioning, four sets of sliding doors to the terraced patio, radio-phonograph and intercommunication systems, built-in desk and planters, bar and breakfast bar.

#### BRAND NAME PRODUCTS USED

Alliancewars bathroom fixtures
Amerock cabinet hordware
Arcodia sliding glass doors
Blackstone washer, dryer, ironer
Bruce flooring
Caleric incinerator
Chrysler air conditioner
Crawford garage doors
Electromede bathroom heater
Fermica counter tops

Hollywood disappearing attic stairs International tile Minneapelis-Moneywell fire aiarm

Panelyte wall panels Permaglas water heater Philco dishwasher Philco refrigerator

Reynolds aluminum windows

Square "D" electric circuit

Talk-A-Radio radio and intercommunication system Thermador built-in avan and

Uni-Bilt Breplace
Weste King garbage disposor
Westinghouse drinking fountain
Wrightex rubber tile
Yajio & Towne hardware

# We aint talkin'...we're just smilin'!

YOU'LL BE SMILING, TOO, BECAUSE THERE IS

# NOTHING LIKE IT IN THE WHOLE

WIDE

ANY NAILABLE MATERIAL

✓ Insulated or wood sheathing, nailable decks or slabs.

The E.G. DO-ALL Loc-Nail is the one product that disproves the old adage "jack of all trades, master of none." The Loc-Nail does serve a multitude of purposes and does it better! That's because of the simplicity of its scientifically designed angular points and the rigidity of its shanks which create a dependable action for easy penetration and automatic spreading. Because there is no material displacement, the holding power is 40% to 200% greater than plain nails in wood.

AUTOMATIC SPREADING

## RECOMMENDED AS CONCEALED NAILING

- -ASPHALT SHINGLES
- -THIN SLATES
- -NON-WOOD BOARDS
- -WOOD SHINGLES
- -DRYWALL CONSTRUCTION-BUILT UP ROOFING

#### ON TO

- 25/32" INSULATED OR THICKER BOARDS
- . NAILABLE COMPOSITION ROOF DECKS
- WOOD STRUCTURAL MEMBERS AND SHEATHING

READ what a reputable and discriminating builder has to say about DO-ALL:

"I have tried this new fastener and can sincerely state that one doesn't have to be an expert to recognize its almost unbelievable dependability due to its automatic spreading action. Results are simply astonishing, particularly since no special tools or gadgets are required. DO-ALL Loc-Nails can be driven home just like a conventional nail.



When stymied by the absence of wood stud or furring necessary to fasten household articles—let "Dr." E. G. Fitsall cure all your troubles. No hokus-pokus, ne drills, no gadgets, no wrenches that require two heads and four hands.

WITH FITSALL ... ALL YOU NEED IS A 1/4" SCREW DRIVER. JUST REAM A NEAT HOLE FOR A SNUG FIT. USE THE STANDARD SIZE FOR 3/4" TO 1/2" SHEETROCK OR THE JUMBO SIZE FOR 3/4" TO 3/4" CONVENTIONAL PLASTER WALL.

Insert FITSALL, tap it in flush to wall, place article over it and proceed to fasten firmly using any type or size screw or hook from #5 to #14 that are usually packaged with the fixture.

THE E.G. FITSALL WILL PERFORM WHERE NO OTHER FASTENER CAN.

For instance; on holes next to studs and on walls where furring strips leave very little space hetween masonry wall and the back of the sheetrock or plaster.

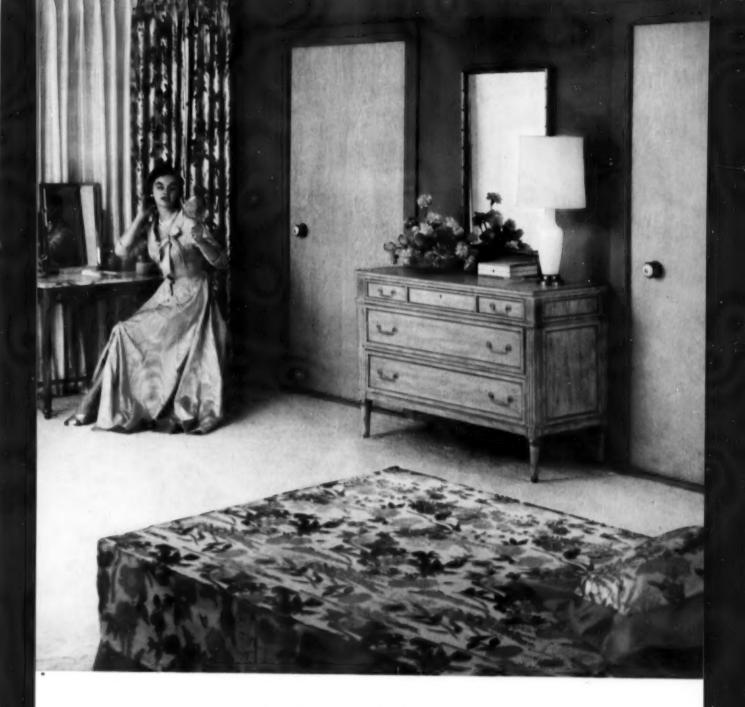
#### ASK ABOUT OTHER DEPENDABLE E.G. FASTENERS

E.G. Stainless Steel LOC NAILS for face nailing asbestos directly on to 3/8" to 25/32" non-wood sheathing

E.G. Galvanized Sliding LOC CLIPS to apply acoustical tiles on wood furrings

Three Generations of General Construction Know-How Is Your Assurance of Satisfaction

E. G. BUILDING FASTENERS CORP. 101 PARK AVENUE



# Background for beauty...

Behind every Atlas Plywood door is a background in which every detail adds up to satisfaction — for your customer and for you.

It all begins back in Atlas Plywood's own forests, where expert care produces some of America's finest hardwoods. And it extends right through our own mills and testing laboratories to the finished product, safeguarded by quality control in every single step of manufacture.

The result is a truly outstanding combination of beauty and dependability — beauty that makes your selling easier and dependability that builds good will. That's why, in the homes you build, it is doubly smart strategy to install doors by Atlas Plywood.



## Doorways to easier sales

Deal in beauty and you're handling one of the most highly salable commodities in the entire building field. And when, as with Atlas Plywood flush doors, this beauty is backed by guaranteed construction, your way to complete customer-satisfaction is clear.

In homes, offices and public buildings everywhere, handsome, sturdy Atlas Plywood doors are rewarding the good judgment of all who use, recommend or supply them. Made of genuine northern birch and other fine domestic hardwoods, they are quality-controlled every step of the way — from American forest to finished product — to make them *your* doorways to easier sales and satisfied customers.

#### Right for every purpose

Atlas Plywood flush doors are available with solid or hollow cores, in all popular woods and grades.

#### Sizes and Measurements

Thickness: 11/4", 13/4", 11/4".

Height: 6' 0", 6' 6", 6' 8", 6' 10", 7' 0".

Width: Hollow Core Doors: 1' 6", 1' 8", 2' 0", 2' 2",

2' 4", 2' 6", 2' 8", 3' 0".

Solid Core Doors: 2' 0", 2' 2", 2' 4", 2' 6", 2' 8", 3' 0".

Stiles:  $1\frac{3}{8}$ ". Rails:  $2\frac{1}{8}$ ". Double lock blocks: 20" x  $4\frac{1}{8}$ ". Faces: 3/20 or  $\frac{1}{8}$ " three ply.

Frames permit trimming 1" top and bottom.

Special sizes, lights, louvers, kickplates and veneers to

Oversize Solid Core Doors — stiles 2" wide, rails 41/8" wide, double lock blocks 24" x 61/2".

(Available in birch, gum, oak and other popular woods)

Free color folder brings you complete details on Atlas Plywood Flush Doors. For your copy address Dept. AB-12, 1432 Statler Bldg., Boston 16, Mass.

#### **Atlas Plywood**

CORPORATION

FROM AMERICAN FOREST TO FINISHED PRODUCT

Boston 16, Mass. Distributors in all principal cities





# BRIXMENT Better Mortar for Blocks



### BETTER PLASTICITY

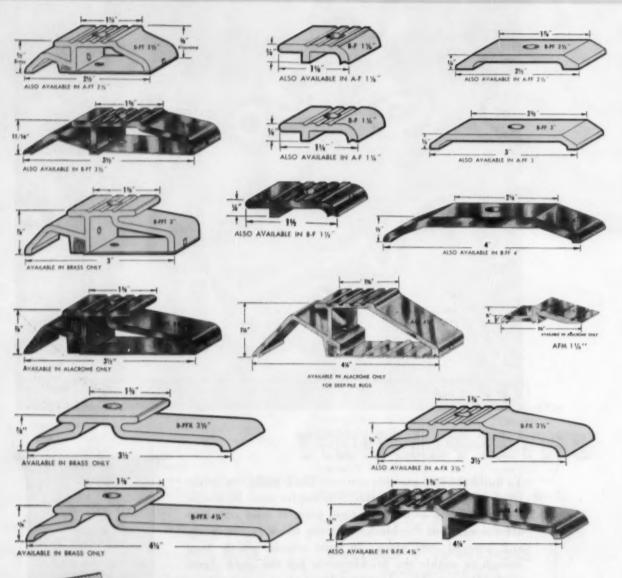
To build the best possible concrete-block walls, the bricklayer must use plastic mortar. The mortar must be plastic enough to stick to the long head joint. It must not drop off the edges of the block when the block is swung up, and lowered into place. It must remain plastic long enough to enable the bricklayer to tap the block down to the line, easily and accurately.

Brixment mortar provides this necessary plasticity. Moreover, it stays soft and plastic long enough to let the bricklayer level, plumb and straighten the unit and adjust it to its final position in the wall before the mortar stiffens.

Louisville Cement Company . . . Louisville 2, Kentucky



# There are LATO NO. ART IN Alacrome or Brass for



Concealed hooks furnished unless exposed type specified!



MACKLANBURG-DUNCAN CO.

OKLAHOMA CITY 1, OKLAHOMA

# THRESHOLDS Every Type Door









ALSO AVAILABLE IN BEEK O

Individually Packed,
Holes Drilled,
Screws and Hooks
Furnished



ORDER DIRECT TODAY!

Your order will be shipped same day received!

Exposed or Concealed Hooks Used in a Variety of Ways

Illustration shows exposed hook as used with Style F Thresholds.



EXPOSED HOOK for Styles F, FFX, FX, FFT and FT Thresholds. Brass or Alacrome.



CONCEALED HOOK No. 349 Concealed Hook for Styles F, FFX, FX, FFT and FT Thresholds.



Illustration shows concealed hook as used with Style F Thresholds.



Illustration shows concealed hook as used with Style FX Thresholds.





accent with

### Texture One-Eleven

adds visible value to <u>any</u> home...
equally effective outside or in

Introduced only last year, Texture One-Eleven has already stirred the imagination of countless architects and builders. Here are a few of the ways it's being used—for accent or feature... outdoors or in...for residential or commercial buildings.



ACCENT flat plywood, masonry and other materials with Yexture One-Eleven. Fits new panelized exterior treatments.



ACCENT your homes with Texture One-Eleven patio fences and outdoor storage. Add sales oppeal at little extra cost.



ACCENT carport walls, add extra bracing strength with Texture One-Eleven. Panels weather well, made with waterproof glue.



ACCENT residential or commercial interiors with Texture One-Eleven. Parallel grooves create shadowline pattern.



ACCENT lines created by bold groeves add high style to strength, durability and economy of Exterior fir plywood.



ACCENT on savings. Builders report panels slash application time and labor costs. Can be applied without sheathing.

See your lumber dealer. He stocks Texture One-Eleven or can get it for you.



How to give new homes a

Cuxury look

-luxury performance for greater sales appeal WITH cushioned comfort of remarkable resilience so desirable in floors for modern homes—and that splatterproof, easy-cleaning quality so desirable in dazzlingly durable counter tops and wall covering, Goodyear Residential Rubber Flooring sparks new home sales the moment prospects set foot in the door!

But more important: this luxurious material is priced to make you more profit. It makes a truly *prestige* installation yet its cost is surprisingly low!

Available in full-yard-wide rolls, as well as in tiles, famed Goodyear Rubber Flooring — the acknowledged leader in its field—is milled to serve every application, from the low cost residential gauge for homes to the heavier commercial gauge.

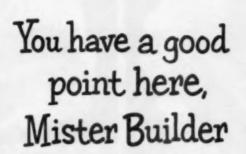
Ideal for on-grade installation - Goodyear Rubber Flooring goes down, stays down and almost never wears out.

Comes in 23 beautiful colors including many new styles designed specifically for the new home décor. You'll find home style hues that say good things about the builder who uses it.

Most of all it says "high quality"—and yet its low cost will be a pleasant surprise. Before you finish off your next job, why not get all the facts on Goodyear Rubber Flooring? Write: Goodyear, Flooring Dept. H-8321, Akron 16, Ohio.

GOOD YEAR Rubber Flooring

IN TILES AND YARD-WIDE ROLLS - FOR FLOORS . WALLS . COUNTER TOPS



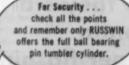
Ma. N. A. WELCH
Director of Research and Development Engineering
The American Hardware Corporation.

You're right... the greatest wear in locks and latches takes place in the mechanism that withdraws and releases the latch. Every time a door knob is turned, the latch retractor travels about three quarters of an inch. In a year, that amounts to a lot of "mileage" and can result in wear and trouble. So in designing the

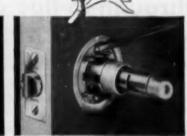
"Stilemanor" line we made the latch retractor as free from friction as humanly possible by equipping it with eight ball bearings. It rolls instead of rubs. Here's a service point worth mentioning to prospective home owners . . . one of several advanced engineering features of the "Stilemanor" Line. Ask your dealer.

For Speedy Installation . . . compare with that of any lock on the market.
We think you'll like the "STILEMANOR'S"

Fer Modern Styling . . . be sure to see all the "STILEMANOR" designs, Builders are showing their approval with orders.

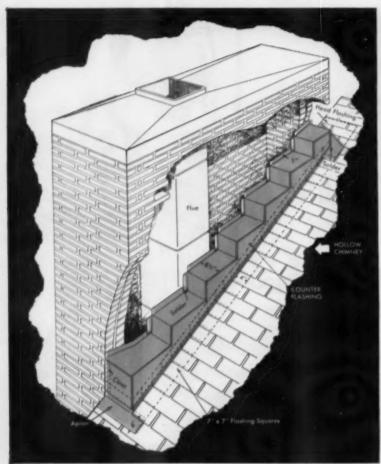




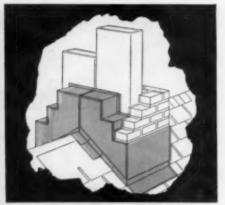


RUSSWIN<sup>®</sup>
"Stilemanor

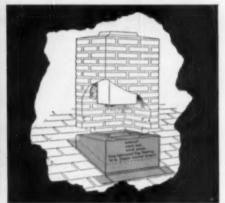
STANDARD DUTY LOCKS AND LATCHES
Products of the "All Star" Builders' Hardware Line by
RUSSELL & ERWIN DIVISION - THE AMERICAN HARDWARE CORPORATION



CHIMNEY OF ARCHITECTURAL DESIGN-Through-to-flue counter flashing, turned up 1" at flue, installed over base flashing at 7" x 7" squares.



CHIMNEY AT RIDGE-Flashing consists of apron at lower edge of chimney, soldered returns at corners, flashing squares leafed between shingles. Cap flashing set to form counter flashing.



CHIMNEY IN SLOPE-Single flue 8%" x 13". Base flashing formed as flange with 4" apron overlapping shingles; 12"-wide head flashing; 4"wide flashing flange at sides of chimney.

### Stop leaks before they start with Anaconda through-to-flue copper flashing

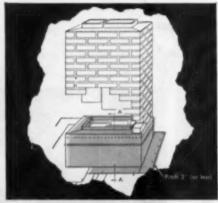
Faulty chimney flashing probably causes more trouble and repair expense than any other detail in roof construction. Leaks often appear soon after completion, and tempers flare. The owner and contractors wrangle over who is to blame.

Protect your clients and your reputation by making sure of two things: first, use the right flashing design and second, specify the right metal.

The through-to-flue flashing de-

signs indicated in drawings on this page will prevent all water, including that which has been absorbed by the masonry, from seeping downward into the interior of the building.

Copper by Anaconda combines advantages offered by no other com-monly used flashing material. It is, of course, rust-proof. It is not affected by mortar. It is easily soldered, assuring you that the flashing you design will have permanently tight joints.



CHIMNEY IN FLAT ROOF-Base flashing must be water-tight, soldered at all joints. Counter flashing carried through masonry, turned up 1" at outer surface of flue.

for better sheet metal work ANACONDA

SHEET COPPER

AMERICAN BUILDER



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- Positive Action Clutch
  (a Champion Exclusive)
- One-Man Portability
  (a Champion Exclusive)
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- Snap-On trowels and Free-Floating Drive Base.
- Choice of Sizes, Gasoline or Electric Power, and many other Champion features!

See this Newest Champion

on the job

Check the features yourself that make this finisher a natural for any job where concrete is laid. The controls are built for quick, effective use with no waste motion, and the entire unit is engineered for trouble-free use on yard after yard of concrete. See it this week!

### by Champion - MAKER OF THESE FINE PRODUCTS:

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# Lowest-priced power for dozens of jobs!

Now your dollars work harder in a Ford Tractor! They buy more work horsepower—no extras unless you want them!

Yes, in Ford's new Special Utility Tractors you get the power you need for fast, efficient loading . . . low-cost hauling . . . easy 'dozing. You get features like famed Ford Tractor maneuverability . . . passenger-car ease of handling . . . exceptional operating economy.

And, new Ford Special Utility Tractors are lower priced—give you more horsepower per dollar. If you don't need power take-off, you can now buy a Ford Tractor without it.

Your nearby Ford Tractor and Equipment Dealer can tell you more about Ford's new Special Utility models... about how they can save you money in a loading or digging "package". He can also tell you how eight other new Ford Tractor models can be equipped to fit an extremely wide range of jobs. Just look him up in the Yellow Pages... then give him a call and get all the facts!

TRACTOR AND IMPLEMENT DIVISION

FORD MOTOR COMPANY

BIRMINGHAM, MICHIGAN











### Hang extra sales-appeal on MASONITE PEG-BOARD PANELS

It's so easy! You add a few strategically placed Masonite® Peg-Board® Panels. In return you get terrific buyer interest all out of proportion to the low cost involved.

Your prospects are immediately intrigued by the possibilities of these versatile, durable panels. Every woman, subconsciously perhaps, starts planning how she will use the "interest walls" in living areas, knowing full well she can change arrangements whenever she wants.

97. M. Rog., B. B. Butler Mfg. Co., Inc.

But Peg-Board panels really "strut their stuff" in work areas and storage places. Helped by a wide variety of interchangeable hangers, they turn ordinary walls into "working walls", keep things orderly and within easy reach.

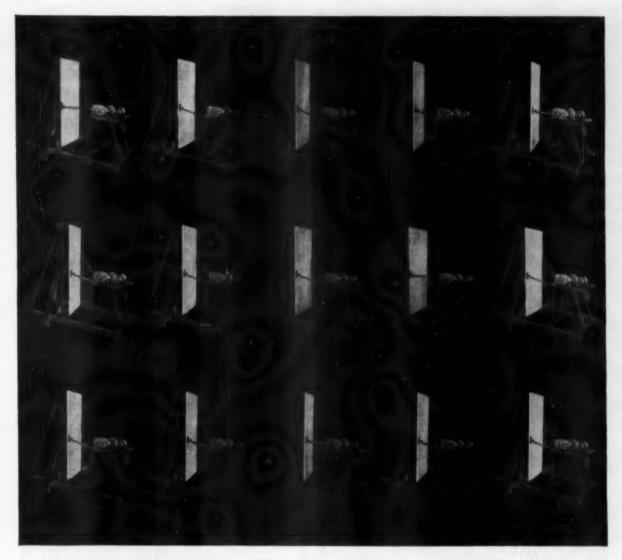
Where will you use Peg-Board panels in your next house? You can buy them, as well as the many other Presdwood products, through your lumber and building materials dealer. Masonite Corporation, Dept. AB-8, Box 777, Chicago 90, Ill.

Look for this man He makes the difference



### MASONITE CORPORATION

MANUFACTURER OF PRESDWOOD PANEL PRODUCTS



### Slam...Slam...642,934 Times... But it couldn't faze a New Londoner door!

After slamming a Curtis New Londoner hollow-core flush door 642,934 times with their special alamming machine, the "torturers" got tired—but the door didn't! Banged 72 times per minute with a force of 192 foot-pounds per second—the equivalent of a lifetime of slamming—the New Londoner door failed to show the slightest injury.

What's the reason for this amazing stamina? It's the patented locked-in, all-wood gridlike core that keeps the Curtis New Londoner door hale and hearty through long years of use—eliminates warping and sagging—gives the owner more for his door dollars.

And that, in turn, is the reason why so many architects and builders consider these superior doors the mark of a better built home. And why, too, they are so widely used in schools, hospitals and other public buildings.

Curtis New Londoner doors and all Curtis Woodwork are sold by retail lumber and building-material dealers everywhere. For complete information, write Curtis Companies Service Bureau, Clinton, Iowa.



CURTIS WOODWORK

Heart of the Home



Water Heating Specialists Since 1930

Middleville, Michigan . Division of Lamb Industries, Inc.

### Buy the BEST-**Buy BESSLER!**

**Build More Saleable Area into Homes with BESSLER** Disappearing Stairways



FREE CATALOG

Illustrates and describes com-plete line of seven Besaler Disappearing Stairway Models to most all your needs. This catalog and wall chart should be in your hands for ready reference—write now!

- 1. The ORIGINAL disappear-ing stairway—made for The OBIGINAL disappearing stairway—made for over 40 pears. A real stairway—not a ladder scene of the pears of

- 5.
- 6.
- below. Full width treads—SAFE
- for everyone.
  ALL steps are of equal
- height.
  Treads and stringers are
  made of Sitka Sprace.
  Full door width provides
  ample access for large
- objects. Full length SAFE hand
- rail.
  Accurate architectural design assures easy and SAFE, ascending and de-

- SAFE ascending and descending.

  13. All metal parts are made of strong. SAFE pressed steel.

  14. Repairs always available on quick notice for all models—no "Orphans."

  15. Doors made of White Pine and Fir in two-panel and fine in two-panel of the present of the
- 18. IMMEDIATE DELIVERY!

THE BESSLER DISAPPEARING STAIRWAY CO.

1900-A East Market Street, Akron 5, Ohio

### WIRING DEVICES for



MOSLEY TV Lead-in Wall

Socket harmonizes with all electrical wall plates. Sup-

plied with Mating Plug and

attractive brown or ivery face plate. Cat. No. F-1PK, List Price, only \$1.95.

WALL SOCKETS, PLUGS, CONDUIT, ENTRANCES, SWITCHES, COUPLERS.

schools, etc.

homes, hotels, apartments,

Maximum built-in convenience at minimum cost is supplied through use of MOSLEY TV Wiring Materials.

MOSLEY products are "TV Engineered" for dependable performance. They have been the choice of expert Installation Technicians-for years!

MOSLEY TV Wiring Materials are available at Radio and Television Parts Distributors - coast-to-coast. Write for name of nearest supplier, Free Catalog and booklet "How Builders Fit Into The TV Picture".

MOSLEY, ELECTRONICS, Inc. 8622 St. Charles Rock Rd., St. Louis 14, Missouri

# Plywood Dealers &

BUILD BIGGER SALES

WITH THE

### HENDRICK PANEL SAW



"We have installed this equipment in our Medford warehouse and are very much satisfied with it. We believe that plywood dealers will find it a practical method of sizing plywood to customers' specifications."

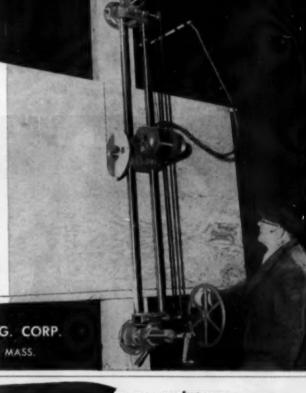
Mr. M. K. Peterson Branch Manager U. S. Plywood Carp. Medford, Mass.

WRITE . . . for illustrated brochure to

Progressive dealers everywhere are increasing sales by cutting plywood to their customers' exact specifications. The Hendrick Panel Saw provides the means to perform this valued service at a low initial cost. The equipment may be mounted herizontally or vertically (as shown) where space is at a premium. Mounted vertically, the saw occupies a minimum of space and greatly reduces all handling and cutting costs.

The machine is designed to cut all structural panels: Plywood, plastic, masonite, wallboard, etc. Models available with capacities of 4 ½ to 12 ½ feet.

HENDRICK MFG. CORP.





make it your best service body buy



#### "FREEZE-FREE" HINGES

Bronze bushings are provided in door hinges to positively prevent binding.

"HIGH-LOW" FLOOR

heavy loads.

Provides added strength

-easier handling of



Dirt, sludge, and waterthrown by the tires-can't reach compartment walls.



#### "HO-BOUNCE" BINS

The hinged cover keeps parts in the bins, and provides an extra storage shelf.

#### "PUDDLE-PROOF" CARGO AREA

A full-width floor drain is built into the head panel.

Service-Master's competent look helps sell your service... reflects your discriminating taste. Send for this FREE BOOKLET describing all the extra features you get in Service-Master.



Compare Service-Master...
feature by feature ... with
any other make. See why
Service-Master is the first
choice of servicemen in
all parts of the country.

Available in 1/2, 3/4, 1, and 11/2 ton sizes.

### MCCABE-POWERS AUTO BODY CO

POWERS

Send me the Service-Master "EXTRA FEATURES" booklet . . .

and have nearest distributor furnish me local delivered prices.

Name Company .....

Dry Zone State

BUILT TO OUTLAST SEVERAL CHASSIS

AUGUST 1955

### One sure way to make people dissatisfied

### Show them a BRIGGS



In Beautyware Sea Green: B300 Marquette Tub, B6420 Prince Closet, Twin B3500 HS Lowell Lavatories

—And TWO bathrooms of Briggs Beautyware will really help to clinch the sale!

BRIGGS MANUFACTURING CO. 300 Buhl Building, Detroit 26, Michigan

### BEAUTYWARE bathroom

The bathroom (like the kitchen) has become one of the most important "showplaces" in the home. Also, it is often in the bathroom that an old home shows its age most.

That means that bathroom fixture design and styling are of greater importance today than ever before. A colorful, modern bathroom with new Briggs Beautyware dramatizes the disadvantages of the old home - - adds many powerful extra reasons for getting out of the old place, and into the new one.

The outstanding features listed below are making Briggs Beautyware the first choice of more and more value-minded builders, architects and plumbers - - more and more quality-conscious home owners and buyers.



### Newest Sea-tone Colors

The fresh, bright, unfading shades of Briggs fixtures add beauty and distinction to any bathroom—make decoration easy, impressive and tasteful.



### **Trouble-Free Fittings**

All Briggs fittings are specially designed, precision manufactured and thoroughly tested to assure a long life of enjoyable and dependable service.



### Hi-Style Vitreous China

Vitreous china Beautyware is made from carefully selected clays—scientifically worked, glazed and fired to produce ceramics of highest quality.



#### Glass-Hard Surfaces

All Briggs fixtures—porcelain enameled steel or vitreous china—have glass-hard surfaces which are stain-proof and fadeproof—and so easy to clean.





#### Time-Saving Installation

Beautyware offers builders and plumbers many exclusively designed features which facilitate installation and speed up home building schedules.



#### **Rugged Construction**

Beautyware fixtures—from rugged bathtubs of reinforced steel to sturdy fittings of quality brass—give a lifetime of satisfaction and service.



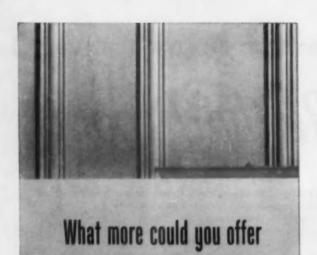
#### Safety-First Design

The exclusive safety bottom of Briggs bathtubs is a great safety feature. In addition are safety hand-grip, wide rim seat and leak-proof wall flange.



#### Superior Value

Beautyware quality is also economical—putting finest color fiatures and an extra bath or lavetory within reach of more people then ever before.



for a couple of dollars a month?

A builder recently told us why he puts *Thermopane\** insulating glass in every window of his \$14,000-\$17,000 price-class homes:

His buyers get the extra comfort and heat savings of Thermopane. Yet it costs them only a couple of dollars a month more on mortgage payments than would single glazing . . . about the same as good storm sash for all openings. And they're free from storm sash chores forever. His salesmen never miss a trick in pointing this out to prospects.

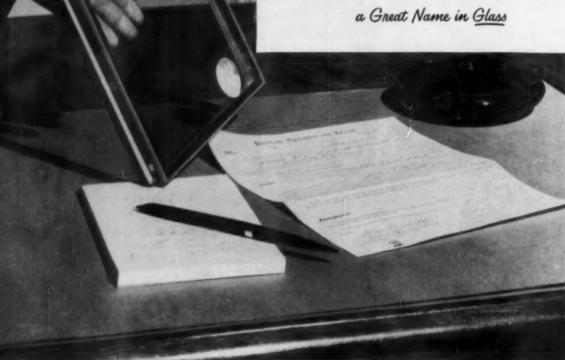
In fact, his salesmen have repeatedly voted Thermopane the feature most likely to succeed in helping sales.

These are the reasons why this builder uses Thermopane in hundreds of houses, year after year. He uses Thermopane economically by designing his houses for standard sash which take standard sizes of Thermopane. For a list of standard sash and standard sizes, write to Libbey Owens Ford Glass Co., 608 Madison Ave., Toledo 3, Ohio.





LIBBEY . OWENS . FORD





### YOU CAN'T BEAT REINFORCED CONCRETE!

America is buying bigger homes, better homes. You will be building some of them. You'll want to see that every last detail

spells economy and "quality."

That goes for concrete surfaces, too. For strength and durability—long-lasting good looks—be sure to reinforce every concrete surface with American Welded Wire Fabric. Not only driveways, but porches, patios, sidewalks, slab floors, curbs, foundation walls as well.

American Welded Wire Fabric adds the strength of steel to your concrete . . . binds the whole slab tightly together . . . stops bad cracks. It costs less to build a reinforced concrete slab because concrete ground slabs reinforced with American Welded Wire Fabric are approximately 30% stronger than an unreinforced slab of equal thickness. There's a type and size of American Welded Wire Fabric for every job.

#### AMERICAN STEEL & WIRE DIVISION

UNITED STATES STEEL, GENERAL OFFICES: CLEVELAND, ONIO

COLUMBIA-GENEVA STEEL DIVISION, SAN FRANCISCO, PACIFIC COAST DISTRIBUTORS TENNESSEE COAL & IRON DIVISION, FAIRFIELD, ALA., SOUTHERN DISTRIBUTORS UNITED STATES STEEL EXPORT COMPANY, NEW YORK



IT COSTS LESS to reinforce the interior concrete.
Use American Welded Wire Fabric for an extra guarantee of permanence in concrete foundation walls and slab floors. It is approximately 30% stronger than an unreinforced slab of equal thickness.

BUYERS WILL ASK Reinforces

EVERY TYPE OF REINFORCED CONCRETE CONSTRUCTION NEEDS

WIRE FABRIC

### TRADE-WIND



This revolutionary Trade-Wind Axial Flow Ventilator now steps out in front with its striking new bright metal grille.

At the extra low price of \$20.28 list, the Trade-Wind Model AF-7M makes kitchen ventilation a must even in the most economically designed house. Can be installed in either wall or ceiling—and needs no elbow for vertical discharge.

### Packed with Features...

Delivers a full 300 CFM with unusually high pressure characteristics against duct resistance. Whisper-quiet performance. Only 50 watt motor. And now the new high style grille which makes a stylish, quality installation.

WRITE FOR COMPLETE INFORMATION



Also available in Model AF-7P with the attractive ivory grille. List \$19.20

Trade Wind Motorfans, Inc. 17

7755 Paramount Blvd., Dept. AB Rivera, Calif.

AMERICAN BUILDER



### Give your agents an extra talking point -use CAST IRON SOIL PIPE

Keep 'em agreeing, and they end up buying - any sales agent knows that. That's one reason why even the hidden features of your houses mean so much. Take the plumbing drainage system, for instance . .

Today's second-home buyer has already suffered through clogged-up sewer lines. He knows the heavy costs of replacing nonmetallic lines. And he'll start agreeing when your agent tells him you've built permanence into your house with Cast Iron Soil Pipe.

It's his tip-off that you're a quality builder, and have used quality materials throughout. And he'll be that much more likely to sign.

#### Cast Iron's Tailored for Developments

Cast iron is installed at low labor cost. That's because it needs no elaborate trenching . . . no special joint supports

... no grading or sifting of backfill ... no babying while it's being installed. Even rough grading is easier, for trenches can be bulldozer-filled without harming cast iron. And in many cities, cast iron sewers are the only sewers permitted in the same trench with the water supply line - so you can often eliminate a trench by using cast iron!

#### Help for Your Agents

We'll give you tags and booklets to help your agents put across their Cast Iron Talking Point quickly. The tags, on cellar pipe, prove quality to husbands prowling through the basements. And their wives can take the booklets home they'll discover "What You Should Know About Plumbing Drainage" - and be happy you've given them cast iron.

For free samples of these helpful sales aids - just mail the coupon.



in movie showings. Millians more have read it in their favorite magazines. They'll be quick to appreciate your cast iron story.



### CAST IRON SOIL PIPE INSTITUTE

Dept. A8-8, 1627 K St., N. W. Washington 6, D. C.

THE MARK OF QUALITY AND ERMANENCE

Want proof for yourself? Ask for "Best in the Long Run," which contains photographic evidence of what can happen to nonmetallic pipes. We'll also send you samples of sales aids. No obligation, of course.

Name

Address

City





Cut sheathing costs. Every time one of your carpenters drives a nail into Temlok® Sheathing, you're adding a few pennies to your profits. That's because the big 2' x 8' boards go up fast and require no building paper. With 4' x 8' x 2\mathbb{\mathbb{Z}}2'' Temlok Sheathing you can also eliminate costly corner bracing. Two men can sheathe an average house with Temlok in one day, cutting installation time and costs by one-third. You also get valuable insulation at no extra cost.

### **BIGGER PROFITS**



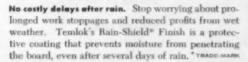


Cut reefing costs up to \$250 per house. In one application—one material—Temlok Roof Deck provides roof decking, insulation, vapor barrier, and interior ceiling finish. It's so easy to apply that your men will cut installation time in half. It takes 4 men only 7 hours to cover a 30' x 40' roof with Temlok Roof Deck, compared to 14 hours with conventional materials.

You never stop saving with



Cut handling time. Each of these carpenters holds material to cover 96 sq. ft. of wall area. While the man on the left grapples with loose lumber and nails up one strip at a time, the other simply removes six Temlok sheets from the easy-to-handle package and covers 16 sq. ft. with each sheet.





### with TEMLOK

Cut handling time. Since you'll be using Temlok Roof Deck on contemporary one-story houses, the compact roof deck packages can be unloaded directly from truck to roof. Temlok Roof Deck also eliminates handling of roofing boards, roofing paper for vapor barrier, rigid insulation, and ceiling finish.





Attractive exposed beam ceiling. Temlok Roof Deck's most salesworthy feature from your customers' viewpoint is the beautiful ceiling that it automatically creates. Supported by beams on 24", 32", or 48" centers, the prepainted ceiling adds a feeling of spaciousness to the room. Another impressive feature is Temlok's built-in insulation which provides comfort both in winter and summer.

For full details on making bigger profits with Temlok, see your Armstrong lumber dealer or write Armstrong Cork Company, 3708 Rider Avenue, Lancaster, Pa.

Armstrong TEMLOK ... house ... after house

SHEATHING . ROOF DECK . INTERIOR FINISH

AUGUST 1955



### ... cost no more than ordinary cast iron sinks!

Nothing brightens up a kitchen quite so much as stainless steel. And no stainless steel sink puts more luxury eye-appeal into a kitchen than Carlton. Carlton Stainless Steel Sinks have no surface enamel to crack or chip—Carlton Sinks are guaranteed never to wear out. Specify Carlton for the superb craftsmanship and exclusive sparkle finish that help so much to sell every home you design or build.



Don't overlook the special Carlton rubberized undercoating that cuts dishwashing clatter; changes garbage disposal noise from a growl to a purl'see for yourself how stainless steel's extra resilience reduces dish chipping and breakage. Carlton's narrower wall between twin bowls almost climinates the splash from a swinging faucet, while the deeper (7¼ ') bowl allows up to a full gallon more water capacity.

Special Note to Builders, Wholesalers, Architects:

A Carlton Stainless Steel Double Sink Bowl (32'x21') weighs only 17 pounds, makes installation much easier. Staintess steel, lighter than cast iron or porcelain on steel, saves you money on shipping costs, too. Write for free Catalog 54, illustrating complete line, and send the name of your distributor. Sink Division, Carrollton Mfg. Co., Carrollton, Ohio.

The bright spot in your kitchen

Fine flooring for every installation

### MOULTILE

MOULTILE asphalt tile.
Reinforced with plastic.

MOULFLEX vinyl plastic tile. In low cost standard gauge.

JUBILEE asphalt tile. Striking dots of color styling.

PARQUETRY asphalt tile. The rich effect of wood block at low cost.

Write for details

Moultile FLOORING SINCE 1929

Moultile

leliet, Ill. . Long Beach, Celif. . Howburgh,

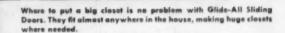
GLAZING COMPOUNDS • CAULKING COMPOUNDS • PUTTIES • MASTICS SEALING COMPOUNDS

Highest quality means finest results. Specify and use D-P products on every job!

THE DICKS-PONTIUS COMPANY • DAYTON, OHIO Alexandria, Va. • Decatur, Ga. • Dallas, Texton

Closets With
MORE
STORAGE SPACE
Can Be Your
Best Salesman





GLIDE-ALL® Sliding Doors

Floor-to-ceiling Glide-All Doors in the Seavlew Motel, Manhettan Beach, Calif. Builder, Frank E. Bivens, Jr.; Architects, Kliegman & Leizer, Los Angeles.

Houses with the extra storage space features of Glide-All Sliding Doors sell faster. Glide-All Sliding Doors are the perfect means of getting more useful and accessible storage room from the same overall area that conventional closets require. They make floor-to-ceiling, wall-to-wall expansive wardrobes possible in small rooms, full height hallway storage space and entrance way guest closets even in confined quarters. Glide-All Doors offer other advantages too. They eliminate costly framing and plastering construction. Installation time is short and requires no special skill. Out of square jambs, ceilings or floors are compensated by simple adjustment features built into each panel.

Glide-All Doors are built to assure trouble-free operation. They roll on Nylon lifetime rollers in overhead steel track... panels are durable Masonite Duolux reinforced with steel tubing and can be decorated just like walls.

There are Glide-All Doors in 8' floor-to-ceiling panels, 6'8' standard heights, overhead or bottom roller models, in flush or recessed panels. They can also be adapted to your special inetallations.

Glide-All Doors are available in Jr. sizes too in heights from 16" to 36" in widths of 18½" to 36". They are ideal for converting waste areas into handy small storage space.

Write today for complete details and for the Glide-All A.I.A. File Folder.



The Midwestern House Architect: Norman Nagle, A.I.A., Minneapolis Builder: Town Development Cerp., Chicaps Glide-All Stiding Doors were selected for this prize Hotpoint Living Conditioned Home for 1955.



Glide-All Doors are produced in 6 modern plants across the Nation . . . available from distributors throughout United States and Canada. For complete information write plant nearest you.

GLIDE-ALL SLIDING DOORS ARE A PRODUCT OF

WOODALL INDUSTRIES INC.

DETROIT 34, MICHIGAN

CHICAGO, 3504 Oakten St., Skekie, Illinois CLEVELAND, Ohio, 1890 Carter Rd. EL MONTE, Colif., 801 West Valley Boulevard LAUREL, Miss., P.O. Box 673 NEW YORK, Glen Cove Rd., Mineola, N. Y. SAN FRANCISCO, 1970 Carroll Ave.



\* Scheme for easier selling with Carey Fire-Chex Shingles and Ceramo Siding in striking combinations!



New shadow-blend colors in the Fire-Chex line—Silver Rain (illustrated), Garland Green, Wineberry Red, Moonmist Buff. Other colors include: Tropic Green, Venetian Red, Dusk Gray, Delta Brown, Chercoal Black, Walnut Brown and Crystal White.



New Ceramo Colonial Yellow illustrated. Other Ceramo colors include: Sage Green, Granite Gray, Salem Red, Congo Brown and Brilliant Ceramo White.

### FIRE-CHEX SHINGLES In beautiful new shadow-blends!

Colorful Fire-Chex on your homes
mean there'll be a salesman on duty
24 hours a day! In sunlight or moonlight, there's nothing to match their
shingles several time.

24 hours a day! In sunlight or moonlight, there's nothing to match their beauty and buyer appeal. They blend so harmoniously, too, with the new siding colors! Fire-Chex are famous not only for beauty, but for ruggedness and long life as well. Tests by a foremost authority prove Fire-Chex outlast ordinary shingles several times over. And even hurricanes won't budge them, a fact "Carol" and "Edna" recently discovered. Put Fire-Chex on your sales force!

### CERAMO SIDING

### in dramatic new colors!

Colonial Yellow is a striking new "cheer up" color that chases gloom, looks smart with any home design! And it's especially handsome in combination with a Fire-Chex Silver Rain shadow blend roof (as shown). All Ceramo colors are an integral part of Ceramo's glazed

ceramic surface. Won't fade, resist stains, are 100% washable with detergent and water! Made of asbestos and cement, two virtually indestructible materials, Ceramo is truly ageless, won't burn, crack, warp or curl. You can't beat it for new homes, or for re-siding jobs.

### Free FOLDERI

Be sure to see beautiful Fire-Chex Shingles and Cerama Siding at your Carey dealer's now. Also, mail coupen for catalog picturing these and other fine Carey products in full color!

THE PHILIP CAREY MFG. COMPANY Dopt. A5-8 Lockland, Cincinnati 15, Ohio

- Please send my free copy of catalog and complete infermation on FIRE-CHEX SHINGLES and CERAMO SIDING.
- Also give address of the nearest Carey dealer in my area.

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FIRM.....

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In Canada: The Philip Carry Ca., Ltd., Montreal 3, P. Q.

Bathroom Cabinets and Accessories • Access Doors • Ventilating Fans Ceramo Asbestos Siding • Shado-Crest Shingles • Reflective Fire-Guard Blanket Insulation • Fire-Chex Asbestos-Plastic Shingles • Other quality products for home, farm and industry since 1873.



Collornamental IRON
Helps you do both!

Of load-bearing solid bar construction; strength tested in a variety of popular designs proved by public preference—Coffman Ornamental Iron increases the value of a home.

### ARCHITECTURALLY CORRECT











Standard step forms for 7" risers & 12" treads.

Final check before pouring concrete. Set-up time is only 40 minutes!

AVAILABLE FROM YOUR BUILDING SUPPLY DEALER

#### FREE

Write for new detailed data and prices on all Coffman products . . .

TODAY

When you want it!

Mass produced under strict quality control, like other standard building products; the Posts, Railings, and Brackets are METAL millwork parts packaged in stock sizes and designs. This permits easy, fast, built-in-place installation. A great saving at no loss of your labor time! It is delivered along with your other building materials right on schedule—no waifing—no jobs haited—no delayed closing.

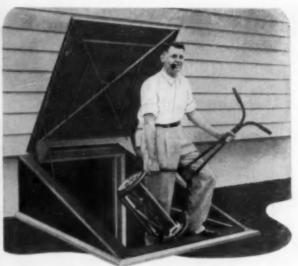
Looks better-IS better!

THE R. G. Coffman Co. INC.
Dopt. A-8 P.O. Box 1113

ORLANDO, FLORIDA







Install the basement entry home-buyers want!

### SERVICE-WAY ...

- Modern Convenience
- · Extra Width
- Easy Installation

Modern family living demands direct access to outdoors from the basement. The extra width of Service-way makes for easy handling of bulky lawn furniture, garden implements, power tools, playthings and other home equipment. Housewives are sold on Service-way convenience, and the step-saving direct route from laundry to clothesline.

Add Sales Value to Your Homes Home-buyers are sold on Service-way because its convenience enables them to derive full use of the basement, and because it saves dirt tracking and undue wear on the rest of the house. Builders like it because of its low cost and easy installation.

All Welded Construction Service-way is made of reinforced heavy-gauge steel to last as long as the house. The single one-piece door is double-flanged: keeps out rain, snow and wind. No wood to rot, no hardware to break. Slide bolts lock securely from inside.

Comes Fully Assembled Complete—ready to install. Made by the makers of the famous Heatilator Fireplace. Write for free folder and specifications: Heatilator, Inc., 268 E. Brighton Ave., Syracuse 5, N. Y.



Finger-Tip Operation

Double-acting spring counter-balances the door in any position.



Simple, Modern Lines

Blends with any style of architecture, becomes an integral part of the house.





### for suburban homes beyond the water mains



### Only FaW Offers These 4 Big Advantages!

◆ You'll do your customers a real favor if you select F & W Water Systems for their new homes. First, they're proven by 87 years of successful, dependable service on farms and homes throughout the nation. Second, capacity for capacity and depth for depth they're most efficient and cost less to operate! Third, F & W precision manufacture, advanced design, and non-corrodable materials assure longer service and lowest cost per year. Fourth, there's practically no upkeep, and F & W's exclusive "Speedichange Rotary Seal" permits pump servicing without disconnecting pipelines or disassembling pump. In addition, each pump is individually tested before leaving the fuctory. So... when you need "Flowing Water," remember F & W!

There's an F & W Pump for every need whatever the depth or capacity requirement.



F & W 2-stage, Desp: Weil Jet Delivers extra capacity. New automatic control valve assures top performence. Send for F & W Data Book No. 210 for your files. It has height information.



F & W Multi-Purpose Fump Change from shallow & deep well simply by moving jet off pump down into well at ne extra cost! The VARIJET (below) delivers 40-70% more water at less cost.



### ON THE RECORD

### and OFF THE RECORD

VANDALISM and its effect on the cost of new home building has been a matter of grave concern to home builders for several years.

INADEQUATE LAWS or inadequate law enforcement is causing both the cost and the concern to mount.

THAT THE COST of repairing the damage by vandals to houses under construction has to be passed on to the consumer seems not to be appreciated by the public. If it were, current apathy regarding the millions of dollars of wanton destruction probably would spur public indignation.

BUT IN THE MEANTIME, it's up to the builders themselves to work out protective measures.

HERE'S ONE PROTECTIVE measure that demonstrably is helpful. It can be credited to John Giles, long a well-known figure in the light construction industry, and currently president of Reserve Supply Co. of Minneapolis.

IT EMBODIES THE USE of slat snow fencing, the use of which has been standard practice as temporary barricades in heavy commercial and industrial construction for years.

"SNOW FENCING," says John, "is easy to install, easy to remove, and is an extremely effective barricade. Trying to climb it to penetrate it is a pretty tough job, as heavy building construction has demonstrated many times."

TO APPLY IT on home building jobs—and it is being done—simply stretch out the desired length, and nail it to the sheathing or studs after the first floor door and window openings have been roughed in.

THE ENTIRE PERIMETER of the house can be enveloped with this vandal-frustrating, relatively inexpensive material in a very few minutes at the close of the day. THE NEXT DAY if access is required through only one or more doors, only those portions of the fence leading to the doors need be rolled back. If complete access is required the entire barricade can be rolled back in a very short time.

WHILE SNOW FENCING will not keep out the determined professional bent on theft, it has proved effective in keeping out children and teen-agers who wantonly damage finished walls, fireplace brick and floors.

WHILE IT IS QUESTIONABLE if a single new idea for conventions has come up in the past fifty years, Bill Difford, the merchandising genius of Douglas Fir Plywood Association, is living testimony that a new assembly of seldom-used ideas can give a brand new flavor to an industry meeting. He did it at the Fir Plywood Fiftieth Anniversary Convention in Portland, June 19-22.

ONE OF THE HIGHLIGHTS was an original, professionally written, professionally produced, professionally directed, semi-professionally acted musical show—a full evening show.

TITLED "THE PLYWOOD AGE," it was produced at the Jubilee Theatre, a plywood glorified assembly hall in a local high school.

IT TOLD THE PAST, present and future story of plywood dramatically in word, dance and song. Played to full houses.

PRINCIPAL FEATURE was the exposition in a Portland armory of 50 Golden Ideas for plywood usage. These ranged all the way from gadgets to new and revolutionary ideas in construction.

THEY WERE THE BRAIN children of five specially selected architects, who came up with many more than the prescribed 50 ideas. Those of interest to builders, will be presented fully described in an autumn issue of American Builder.



### (OL' SHIVERS)

Winter comes and Gramps is taken up with Rheumatiz and Ague. He used to stuff flannel around the windows to stop drafts until Dura-seal equipped windows came along. They do the job much better.



### COLLEGE BOY

Fling open the windows! Extend arms! Inhale! This boy's a fresh air fiend. Likes windows that open at the touch of a pinky. Dura-seal equipped windows, of course. Exhale.



### MOM

(HOUSE NURSE)

Statistics prove that today people are healthier than anybody else. Mom knows there's not a cough in a million carloads of Dura-seal equipped windows. They give 4½ times better weather protection.

### TYPICAL HOUSE BUYERS

AND HOW TO PLEASE EVERYBODY



### Get the Window Unit that Provides Weather Protection and Easy Operation

Here's the window unit that saves 30% to 40% on fuel. Here's the window unit that opens easy, smooth, quiet. Here's the window unit that adds beauty to every house. Dura-seal Combination Weatherstrip and Sash Balance actually provides 4½ times better weather protection while allowing easy opening and closing no matter how the sash may expand or contract due to atmospheric conditions. Send for complete information today.

Zegers, Incorporated 8096 South Chicago Avenue, Chicago 17, Illinois

### **ZEGERS**

Dura-seal

Combination Metal Weatherstrip and Sash Balance Look For The Name On The Metal!



### JOE and BETSY

The Jones' answer to the hydrogen bomb . . . and two stockpiled already. Strangely enough, kids always have a tough time opening the back window for you. That's why kids say, "Dura-seal, rah, rah, rah!"



### BROTHER-IN-LAW

Henry's the scientist. He studies laws of inertia. What's more, he doesn't want to be disturbed by alarm clocks, factory whistles or noisy windows going up and down. He knows all about quiet Si-Vel coated springs.



### (WHO PAYS)

Time was when Pop about had a conniption when he got his fuel bills. But now he laughs when he puts the window down because Dura-seal weatherstripping pays its way a hundred times over.

## AMERICAN BUILDER ANNOUNCES A NEW 1955 NATIONAL HOME WEEK CONTEST

PURPOSE: to find the individual professional builder whose 1955 National Home Week house and its promotion most effectively express the week's purpose.

The contest is open to everyone professionally engaged in the construction of homes.

Judges will be a board of nationally known figures in the home building industry.

Entries need not be elaborate. In fact, the simpler the better. The judges will be influenced more by the basic facts reflected in the entry than by the style of presentation.

### HERE ARE WHAT THE JUDGES WILL LOOK FOR:

- Good design, whether it be conventional, period, contemporary or modern.
- 2. Unusual, but sound and economical jnterior and exterior design features.
- Public appeal as measured by attendance and actual, traceable sales.
- 4. Quality and scope of promotion and advertising—newspaper, radio, television (where available), direct mail and other media.

- 5. New or unusual construction techniques.
- Measures taken to secure active prospects, and to follow through for future sales.
- 7. Appropriateness of furnishings.
- Use of branded products and their use as sales aids.

#### THE AWARDS ARE:

- Grand First Award in the form of a special plaque,
- 2. Plaques for second, third and fourth awards.
- Framed plaques for six honorable mentions, making a total of ten awards.
- 4. To the individual (the builder himself, a member of his family or his organization, an association secretary, a newspaper man, anyone the builder may designate) who makes up and sends in the top winning entry, American Builder will award one hundred dollars in cash. Fifty dollars will be said to individuals

who submit remaining winning awards and honorable mentions.

#### HERE'S ALL THERE IS TO SENDING IN AN ENTRY:

Assemble the following, wrap securely and send to

CONTEST EDITOR
AMERICAN BUILDER
79 West Monroe Street
Chicago 3, Ill.

- Blueprint of complete working drawings of model home.
- Rough detail drawings of special features, if any.
- A selection of interior and exterior photographs.
- 4. Brief descriptions of unillustrated features. (Optional)
- Brief description of time and money saving construction techniques or short cuts.
- Builder's statement of attendance during National Home Week, and traceable sales from the model house.
- Samples of advertising and promotional material, as well as editorial material appearing in newspapers.
- 8. List of major materials, equipment and appliances in the house.

The above list is intended only as a guide. It is not a check list for the judges. Include any or all items.

Entry entails no obligation or fee. Entries must be in Chicago by October 12. Award winning homes will be published in American Builder.

Use the entry blank on this page, or otherwise signify your intention to present an entry.

Do it TODAY—NOW, and become a contestant for the year's most distinguished awards to the builders of America's homes.

### ENTRY BLANK AMERICAN BUILDER 1955 NATIONAL HOME WEEK CONTEST

TO CONTEST EDITOR, AMERICAN BUILDER 79 W. Monroe St., Chicago 3, III.

Please accept this as my entry in American Builder's 1955 National Home Week Contest, and send me rules and full details at once.



Radiantly beautiful floors for radiant-heated homes . . .

### **GOLD SEAL RANCHTILE**°

Highly soil-resistant "Ranchtile" is designed especially for on-grade installations. You'll find it in more and more new homes. Here's why:

**RANCHTILE** is soil resistant... more soil resistant, and easier to maintain... than any other resilient tile. This soil-resistance makes it a perfect flooring for teday's casual, indooroutdoor way of living. Also has great resistance to grease and staining.

RANCHTILE is resilient, quiet and comfortable under foot. Highly resistant to marring, scuffing, scarring. Has exceptional resistance to denting from furniture.

**RANCHTILE** is decorator-styled. It gives you a wide scope of 15 patterns in 2 design groups that add a luxury look to every on-grade home. Customers can *move right in...* without any extra expense!

### For home or business... you get the finest choice of all in...

INLAID LINOLEUM • RANCHTILE® LINOLEUM • VINYLFLOR • VINYLTOP • LINOLEUM, VINYL, VINYLBEST, RUBBER, CORK AND ASPHALT TILES • CONGOLEUM® AND CONGOWALL® ENAMEL-SURFACE FLOOR AND WALL COVERINGS

RANCHTILE has an initial cost that is less than that of most other floorings suitable for on-grade installation. As compared to cheaper products, the difference in initial cost is more than compensated by the low maintenance cost of "Ranchtife."

RANCHTILE is a Gold Seal exclusive. You and your customers are given the assurance of the Gold Seal Guarantee... satisfaction or your money back.

SPECIFICATIONS: Install Gold Seal "Ranchtile" over on-grade or suspended concrete . . . with or without radiant heat. 9" x 9" tile. Standard gauge. 15 beautiful, textured patterns. "Ranchtile" is approved for use in homes, motels, schools, and churches. Use amazing, new Gold Seal "Three Twenty" adhesive . . . the adhesive that requires no mixing. For complete information, write: Builders' Service Dept., Congoleum-Nairn Inc., Kearny, N. J.

\*Trade-Mark





BIG BUT NOT COSTLY: 1,955 square feet at \$9 a square foot, From the street, simple but strong character

### This is the kind of

### BUILDER

### BLUEPRINT HOUSE

#### BUILDERS:

LaPierre-Peterson Enterprises, Inc., Seattle, Wash.

#### DESIGNER

George W. Heideman, Seattle, Wash.

#### SQUARE FOOT AREAS:

For computation purposes the garage is considered as a part of the house and is included in the full square foot area. The space for patio, barbecue, and the partion of the chimney protruding beyond the walls of the recreation room is not included within the square foot area, but is set up as a \$550 item which is included in the over-all cost.



TWO BATHROOMS: Glass shower enclosure and built-in lavenette are part of the package



SPACIOUSNESS: A feeling of great size is created for the living zone by opening up living room to the family room

### house the public asked for

This new model-the Seasonmaster Deluxe, shown at the builders' Mountlake Terrace development-reflects consumer reaction to LaPierre-Peterson houses shown during National Home Week last year. At that showing, visitors were asked to set down their opinions about the featured models, and the best of these ideas were incorporated into LaPierre's planning of models offered this year.

Al LaPierre has pointed out the similarity between builders and manufacturers. He says: "A builder is a manufacturer of a product, similar to other manufacturers. Before placing his product before consumers, he must learn what the market needs; then he must set about meeting that market." Following this philosophy in practice keeps LaPierre abreast of the times without getting too far ahead of consumer acceptance and ready marketability.

The Seasonmaster Deluxe offers many desirable fea-

tures in line with what buyers want. Chief of these is the large family room located at the rear of the garage. An intermediate hall gives direct access to the living room. Thus the living, dining and family rooms constitute an area of 641 square feet, which can be used as a single unit. There is a fireplace in both living and family rooms, with an outdoor barbecue which serves the patio adjoining one side of the family room. The fireplace walls of both rooms have extended storage walls finished in cedar paneling.

An over-sized one-car garage and storage area, with easy access to the living rooms, completes the living zone. The other half of the house is devoted to the quiet zone, with three bedrooms, dressing room and two bathrooms.

The exterior walls, faced with asbestos shingles, are a simple expression of the plan. These are capped with a 5-12 pitched gable roof covered with asphalt shingles. MORE

For LaPierre's COST-SAVING CONSTRUCTION and SELLING BY CONCENTRATION . . . see pages 76-79



OUTDOOR LIVING: Patio with barbeeue at rear of house is planned for privacy

The window openings follow a standard pattern of fixed and hinged units, placed so they are properly proportioned to the wall surfaces.

Of special interest is the plenum-chamber type of warm air heating system. For its detailing, please turn to page 79.

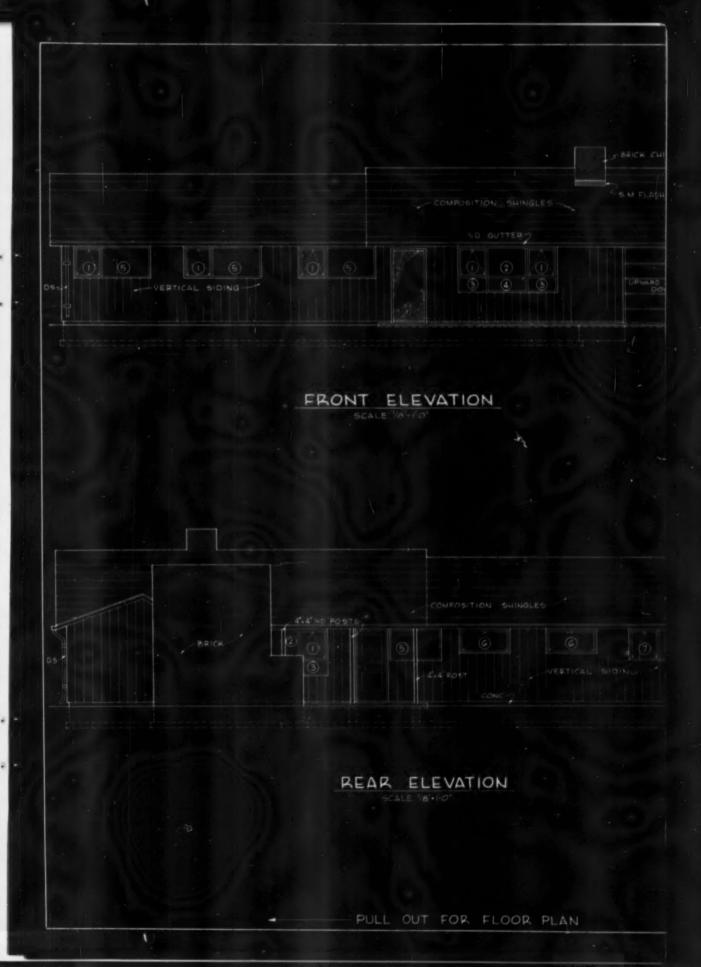
With the Seasonmaster Deluxe the builders have not made an attempt to glamorize, but present a good, livable house with plenty of square foot area, at a reasonable cost. This is in line with LaPierre-Peterson's policy of trying to give the most for the money at Mountlake Terrace. It was six years ago that Al LaPierre and Jack Peterson stood on an abandoned air field north of Seattle and saw in their mind's eye the development that now contains 2,700 homes and a population of 11,500.

#### BRAND NAME PRODUCTS USED

Armstrong sheathing
Armstrong lineleum
Armstrong asphelt tile
Beauty door glass shower
door on tub
Briggs plumbing fixtures
Bird asphalt shingles
Clipper kitchen fan
Formica counters
Frantz garage door
G-E warm air furnace

G-E controls
Hotpoint dishwasher
Kennatrack sliding door
hardware
Lighting Fixtures Inc., fixtures
NuTone door chimes
Preservative paints
U.S.G. Rockwool insulation
U.S.G. Sheetrock
Weiser hardware
Westinghouse water heater

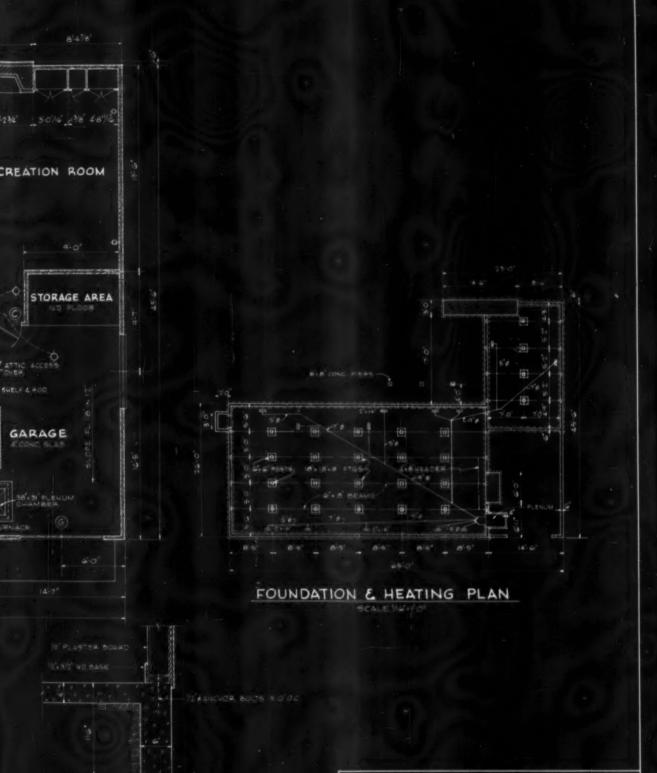
For information about complete one-quarter inch working plans of this house write American Builder Home Plans Service, 30 Church St., New York 7, N. Y.





SCALE: VALUE

FOU



OUNDATION SECTION THRU GARAGE

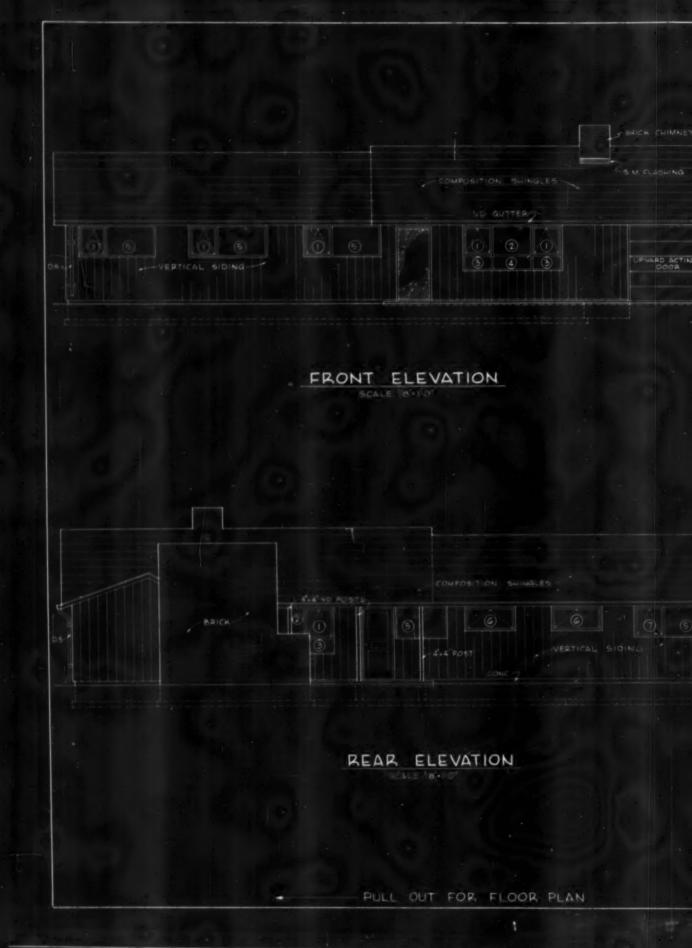
DESIGN NO. A.B. 222

AMERICAN BUILDER BLUEPRINT SERIES.

DESIGNED BY

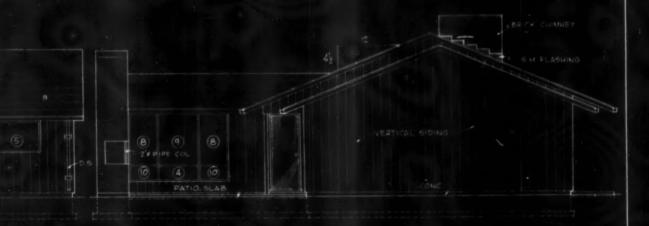
GEORGE W. HEIDEMAN

as-Boardman Publ, Corp. 79W Monroe St. Chicago S. II





#### RIGHT SIDE ELEVATION SCALE VA". 1:0"



## LEFT SIDE ELEVATION

### DESIGN NO. A.B. 222

AMERICAN BUILDER BLUEPRINT SERIES

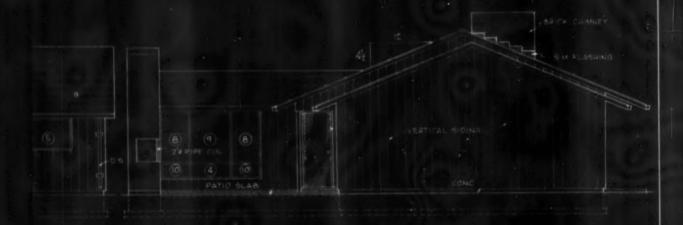
DESIGNED BY
GEORGE W HEIDEMAN

Simmons-Boardman Publ, Corp 79W.Monroe St. Chicago 3 11



## RIGHT SIDE ELEVATION

SCALE: 1/8" 10"



## LEFT SIDE ELEVATION

### DESIGN NO. A.B. 222

AMERICAN BUILDER BLUEPRINT SERIES

GEORGE W. HEIDEMAN

Simmons-Boardman Publ. Corp 79W Monroe St. Chicago 3.1

## Quantity List of Materials For American Builder Blueprint House No. 222

#### George W. Heideman, Architect

	George W. Heid
	General Information
	House — Type
	Garage — Area
	Patio — Area
	Excavating
4	Trench for foundation
	Excavation for crawl space
	Cement Work
	Foundations

Foundations		 2		0	0	0	0			0					0						 26	64	CW	. ft.
Concrete work																	,6	0	0	sq		2"	1	hick
Sidewalks	0 0	0	0							0	0		0				1	13	5	60	ft.,	4	1	hick
Anchor bolts																								
Miscellaneous		 					×	*			-	36	at	ic		-		40	0		ft.,			
																								-

Masonry																																												
Type	0												, ,										0				,			. ,													bri	ck
Walls		0								0 1	0 1		0 1	0	0	0	0	0	0	0	0		0	0	0	0	0	0	1	17	7(	9	9	q		1	¥.		0	f		00	we	all
Chimne	ıy						0	0	ø	٠	0	p.		٠	۰	0		0	0.	0.	0	٥						0			2		_		2	5	5		w		-	ŧ.	80	ch
Flue		lâ	ni	n	9				0	0	0		0	0							0	0						0				1	7		li	n		f	ł.		1	0"	di x1:	Œ.
																																	-								01	_		
Firepla	24	•				+																			, ,																		fv	VO
Thro	a	ŧ	0	PF	d		6	la	n	ng	94	PF			۰	0	0		0	0		0			0		0	0	0	0			0	0		0	0				0 1			2
Linte	di	6										0								0		0							0		0	0							0 1	0				3
Miscell	a	ne	PG	ш	18				0	0		,				8	p	81	cii	a	į	b	10	IF.	Ь	81	ı	e		W	re	e	ke	H	ı	i	ni	0		Ь	ric	ck	we	ile

		Iron W	ork	
Lally columns	 		1 —	2" dia. 2'4" long
Miscellaneous	 ****	******		lintels required at

Windows — Type
Material
Ventilating
2 — 50"x18" 2 — 26"x12" Fixed 2 — 48"x30" 4 — 30"x16"
Fixed 2 — 48"x30" 4 — 30"x16"
6 — 54"x30"
2 — 30″x57″ 1 — 48″x57″
Exterior doors
Flush 1 — 3'0"x6'6" — 1 ¾4"

	3X penel 1 — 2'8"x6'8" — 1 ¾"  3X penel 1 — 2'8"x6'8" — 1 ¾"
Garage	door 1 upward-acting 8'0"x7'0"
Interior	doors including jamb and trim
	Flush type 4 — 2'6"x6'6"x1 3/4"
	1 — 2'4"x6'6"x1 %" Sliding 6 — 2'6"x6'6"x1 %"
	4 3'0"-4'4"-1 2' "

Special	Interior doors — all carpenter built with 1"x4"  D&M cedar paneling
Special	2 ρr. — 3'0"x2'5" 1 sgle. — 1'6"x7'5" interior millwork
special.	lin. ft. upper kitchen cabinets; 12 lin. ft lower kitchen cabinets; one 4' long snack bar 2 layatory cases; 1 special dressing table

	arpentry
Beams and girders	8 — 6"x 8" — 26'0" 4 — 6"x 8" — 16'0"
	2 - 6"x 6" - 12'0"
	1 — 4"x 8" — 10'0" 2 — 2"x10" — 14'0"
	3 - 4"x 4" - 8'0"
Foundation plates	264 lin. ft. 2"x4"
	400 lin. ft. 2"x4" — 8'0"
	1,650 lin. ft. 2"x4" plate
Ceiling joist	39 — 2"x6" — 18'0"
	35 — 2"×6" — 16'0" 40 — 2"×6" — 12'0"
Book college	38 — 2"x6" — 18'0"
Roof fariers	32 — 2"x6" — 16'0"
	20 — 2"x6" — 8'0"
	50 — 2"x4"x10 feet
	15 — 1"x8" — 12'0" collar beams 100 lin. ft. of 1"x8" ridge board
Framion lintels	2 — 2"x10" — 20'0"
Transition of the transition o	10 - 2"x10" - 8'0"
	4 — 2"x10" — 6'0"
	8 — 2"x12" — 10'0" 2 — 2"x12" — 8'0"
Subfloor	4,000 b.f.m. 2"x8" D&M
	3,500 b.f.m. 1" roof boards
	2,200 b.f.m. 1" shiplap
	2,350 b.f.m. vertical siding
	1,127 sq. ft. area to cover
softwood	
Floor coverings	220 sq. ft. linoleum and 254 sq. ft. asphalt tile

Gutters	0	0	0		0		0		0	0	0 1	,	0 1	0 1				, ,		e				1	65	lin.	ft.	w	bee	9	utter
Downspor	et	8		D		0			0		0	0	0	9	0	0	0	0 1		0			40	)	lin.	ft.	90	lve	inize	d	iron
Flashing								. 0					0			0		,	ai	1	tv	W	9	c	hlm	neys	OF	d	brick	k	wall

Roofing

		 	 	 compo	sition shingles 28 squares
Area to	he		 	 1,600 sq.	ft. of walls ft. of calling area to cover

This quantity list will be subject to variation depending on the common practices in various sections and municipalities of the country, the techniques of individual builders, the types of materials available locally and cost factors. The list published here is a suggested one, complete enough so that it can be used in arriving at a reasonably accurate estimate of the quantities and cost of materials that will be required to complete the structure. It was prepared by experts at the Edward Hines Lumber Co., Chicago.



The prospect picks up bold directional signs on nearby highways

LaPierre-Peterson's Mountlake Terrace in Seattle has been under development since 1949. During that time many methods of merchandising have been used. Some have been abandoned while others have been retained and enlarged. The one method that outlives all others is the furnished model house. People want to walk in, look around, see and touch.

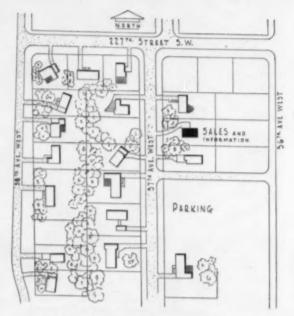
This year the builders developed the model house idea in a big way, and set up what they called the Mountlake Terrace House-o-rama. This was a group of 18 model homes, each with a different design and 11 of them furnished.

The houses varied in size from two to four bedrooms, with one, one and a half and two bathrooms. Some had family rooms, some carports, some garages. Other features were also optional. From the House-o-rama the prospect could get a concentrated and complete picture of the various models offered by the builder, and understand what price went with what. All models were completely landscaped and carefully sited each on one-third of an acre. The price range was from \$10,750 to \$16,950.

The House-o-rama was opened to the public this spring for a period of two months. Two months before the opening, intensive promotion was carried in the newspapers, with spot announcements on TV and radio, and promotion at the Seattle Home Show.

Literature describing vital facts about each house was given to every visitor. This included a sheet to fill out which asked for the visitor's opinion about the house. These facts coming out of consumer reaction were tabulated and on the basis of this tabulation LaPierre-Peterson designed two new models to be built in volume this year. These houses are the Zenith and the Cameo, shown opposite. States LaPierre: "We believe we are on the right track, and our May sales on these two new homes prove this belief to be well founded. We sold 108 for the month of May."

## House-o-Rama the technique of selling by concentration



When the visitor gets to House-o-rama location, he finds all 18 houses plotted together, easy to visit



Hostess greets visitors at the furnished models, hands out descriptive literature and consumer opinion sheets



At the site, attendants in white jackets are on hand to help with traffic and parking

#### These two houses are the result of reaction by House-o-rama crowds



THE CAMEO is a house of 952 square feet, selling for \$9,000. The unfinished all-purpose room 11x16 gives the elbow-room so needed in a small house. The house uses Kohler fixtures, Woodall sliding wardrobe doors, NuTone



door chimes, Colotype bath recess, built-in vanity and extra-large medicine cabinet with two mirrors, cork tile floors. The kitchen is plumbed for automatic washer and has a Westinghouse under-counter water heater



THE ZENITH is a house of 1,505 square feet selling for \$12,500. It has hit the spot with 4-bedroom buyers. Living room has cork tile floors, beamed ceiling. Carage



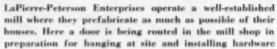
space, 13½x23, is plumbed for automatic washer and dryer. The house has an oil-fired furnace, 80 gallon Westinghouse water heater, extra-large linen closet

## LaPierre's Seasonmaster construction cuts costs



Mill-made parts . . .

delivered for site assembly . . .

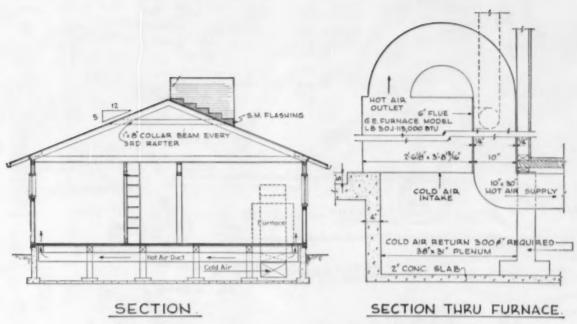




reduce labor at job to minimum >



Windows prefabricated in the mill are installed as units. Glazing is done on the site



Crawl space becomes a plenum for return air in heating system

#### New heating system eliminates return ducts

The heating system used by LaPierre in the Season-master is referred to as a "plenum chamber" type. It eliminates the usual sheet metal work required for return air ducts. A G-E oil-fired forced warm air furnace is placed over a concrete pit located on one side of the garage adjoining the fireplace and fireplace flues. Supply ducts extend from the pit under the furnace to the various rooms. The return air is not piped back to the

furnace but is permitted to flow back freely to the furnace through a concrete vault or plenum chamber. This chamber is made by laying a 2-inch thick concrete slab over the entire crawl space area and tightly sealing the walls and floors above. This creates a two-way heat supply: heated air is supplied by ducts to each room, and warm floors result from the return air free flowing through the plenum chamber.

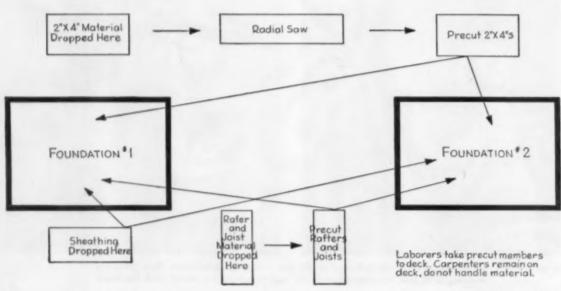




Doors and frames are delivered at the site rendy for installation. Only work remaining is to true these members in the wall openings and install finsh hardware



# Power tools make you plan . . . planning means faster building, greater





RADIAL SAW on skids is set at pile of 500 2x4's, enough for two houses. After cutting by specially detailed man, studs are moved by laborers a few feet to building site



POWER HAND SAW run by a portable generator cuts joists and rafters for two buildings at pile of lumber dropped there on schedule

HERZOG Northside development shows construction in various planned stages. Lumber is dropped at front and rear of foundation. Cutting crews move from pile to pile with power saws cutting members to size

SAW MAN precuts plywood roof decking, which goes at once to roofing crew. House was raised in two days, roof will take another half day



## profit –

POSITION unloaded lumber correctly

PLACE RADIAL SAW to service two houses at a time

HANDLE LUMBER as few times as possible

COORDINATE MECHANICS at saws with carpenters on house

The more a builder uses power tools, the more money he's likely to make—not merely because of minutes saved in sawing and shaping, but because efficient use of the machinery investment demands more refined planning than most small operations use.

The Herzog Realty Company in Des Plaines, Illinois, reports a system which they figure saves 30 carpenter hours, \$100 a house. Lumber for a pair of houses is delivered in three loads, each strategically dropped.

The first load consists of floor joists, box sill material, 2x4 layout plates and deck plywood, enough material for two houses. It is dropped between the two foundations.

The second load goes in front of the two foundations. It includes all the exterior framing (except studs), comprising 2x4 cripples, sheathing, wind braces, headers, trimmers, backing, ceiling joists and rafters.

In the third load, delivered at about the same time as

the second, goes all stud material, about 500 8-foot lengths of 2x4's. The drop point is the rear of the foundation, where a radial saw is positioned. After cutting a pile to length, the saw operator moves on to another pile of 2x4's while laborers stack on the deck what the carpenters are ready for. The studs are the only lumber that requires additional handling.

The system uses three saw men: one to cut deck material, another exterior framing, the third the studs. It supports a house-a-day schedule.

Specialized crews follow the cutting crews, and nail the precut members in place. The deck takes one day. Then a layout man sets and marks plates for the exterior. During the next day and a half, four carpenters raise the four exterior walls, gables, ceiling joists, roof rafters, and they sheath the roof. Exterior trim and soffits are cut on the job.

#### TIPS FOR THE PORTABLE POWER TOOL SHOP



AT HOME IN A TRAILER, waterproofed and locked, are the smaller power tools used by California builder Don Hershey in custom building 12 to 15 houses a year.

The 3½ hp air-cooled generator hooked on behind permits work to begin before power lines are brought to site, a second trailer carries cords, shovels, miscellaneous tools



BOX EACH TOOL: each tool should be locked into trailer every night, each in its own box. Power tools require care in handling



FASTEN TEMPLATES TO-GETHER on a large bolt so that they won't rattle around in the trailer and perhaps suffer damage

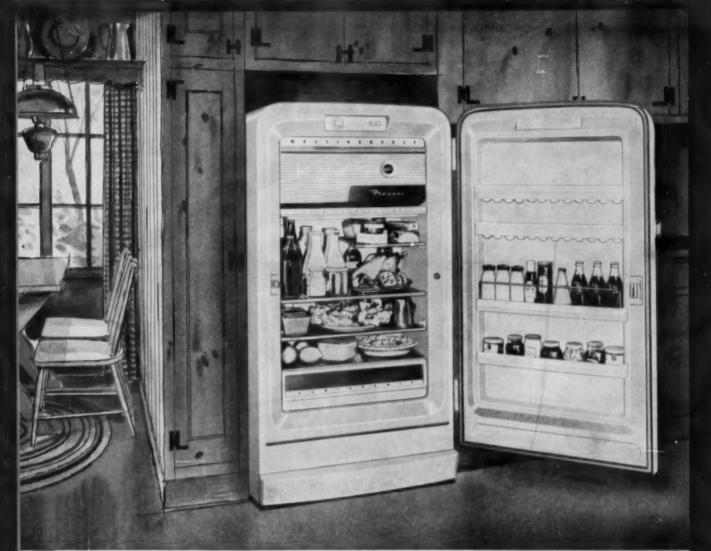


ORGANIZE SAW BLADES: put dulled blades on "book" marked "dull" take one from "sharp" book. Sharpen "dull" book every 3 weeks

#### TANDEM CUTTING SPEEDS HANDLING

CHICAGO BUILDER Carl Wunschel finds that two men are better than one in power cutting of 2x6 roof rafters. They cut down motion on the job 50 per cent by cutting both ends of rafter simultaneously





Model PH-90-9 cu. ft. capacity



NO MORE OF THIS FOR



## Automatic defrosting at the push of a button in four, low-cost Westinghouse Refrigerators

New home prospects are seeking higher living standards... more conveniences. Automatic defrosting is one way you can help them attain these desires. The new, exclusive patented Westinghouse system permits Freezer to be defrosted so quickly that frozen foods remain firmly frozen. User merely pushes "Defrost" Button, and frost is removed automatically as soon as unit starts to run.

All four Westinghouse Push-Button\*
Automatic Defrosting Refrigerators also

offer such most-wanted features as fullwidth Freezers; bonus egg and bottle storage in deep Shelves-in-Door; fullwidth Humidrawer® with moist cold to keep vegetables crisp and fresh; and the famous, extra-capacity, ½-hp Economizer Mechanism.

Put one of these model home salesmen to work for you now. For more details, see your distributor or write WESTINGHOUSE ELECTRIC CORPORATION Electric Appliance Division • Mansfield, Ohio

\*U. S. Patent Issued, No. 2,324,309

Other sizes availables

Model PH-125—12.5 cu. ft. Model PH-109—10.9 cu. ft. (shown at left) Model PH-80—8 cu. ft. Makers of Refrigerators • Home Freezers • Ranges • Laundromats • Clothes Dryers • Dishwashers • Water Heaters • Vent Fans • and Food Waste Disposers

YOU CAN BE SURE ... IF IT'S Westinghouse

No Sooner Built...





SARGENT'S Certificate

Guarantee

ALIGNA OCKS

...help sell the house

## than Sold!

## ...when you use ALIGNALOCKS and ALIGNALOCK Sales Aids

Judge a book by its cover? Course not.

But your customers can judge . . . do judge a house by the brand name products they see in it. Particularly the locks!

New houses built with AlignaLocks change hands fast. From builder to buyer. From you ... to your customers. That's because Aligna-Locks are made by SARGENT . . . a name that's known and respected by everyone. And because AlignaLocks are recognized in their own right as "the Sign of a Well Built House."

So use AlignaLocks, like thousands of other smart builders. Use them throughout the house. Let your prospects see the Sargent name in every room . . . as a reminder of quality.

Every AlignaLock you install is guaranteed for the life of the house!

Does this lifetime guarantee impress

home buyers? Sure does! Customer comments... and actual home sales... prove it.

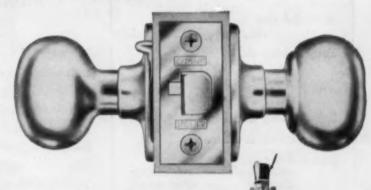
You get maximum mileage . . . top benefits . . . from this Sargent AlignaLock Guarantee by using these free home-selling aids all around the house.

(A) . . . Hang copies of the Guarantee itself on the most used locks. (B) . . . On windows and other convenient spots, put the AlignaLock signs saying, "AlignaLock—the Sign of a Well Built House. Guaranteed by Sargent of New Haven." (C) . . . Wherever they can be picked up in the house, leave the colorful AlignaLock folders. In addition to selling the Guarantee, these folders point out the AlignaLock features.

Help your new houses change hands fast and profitably...with AlignaLocks and AlignaLock Sales Aids. Get in touch with your supplier today.

## Put more SELL in Every Room with ALIGNALOCK

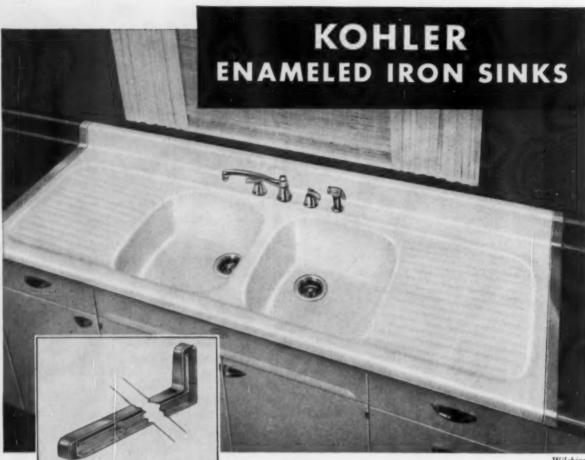
AlignaLock...the quality lock in the low price field... is available for every household function. In four beautiful finishes! Perfectly balanced! One-piece knob... big and graceful! Self-aligning assembly! Five pin tumbler protection! All interior parts machined or wrought steel. No other locks can be installed faster! Order AlignaLocks today from your supplier. Or write direct to Sargent & Co., New Haven 9, Conn. Dept. 9H.



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#### Wilshire

#### FEATURES THAT SELL

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without joints.

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Pastel colors, or white.

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make basins water-retaining; removable cups collect waste.

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## Metal union strips and straight backs insure neat, workmanlike installations

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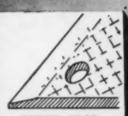
Kohler Co., Kohler, Wisconsin, Established 1873

## KOHLER OF KOHLER

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ANOTHER FIRST FOR DRYWALL TRIM, INC.

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is tapered to provide a more uniform thickness of spackle from the nose to the feathered edge.



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permit the spackle to rivet itself into the nose of the bead with a positive key, even when the board fits tightly in the nose.



#### SQUARED NOSE IS WIDER & UNDERCUT

Wider to space the spackle further away from the corner - thus giving steel protection where it is needed most. Undercut to provide a better grip and tapered to the contour of feathered-out spackle for a perfect finished appearance.



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Pittsburgh Glass

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See Sweet's Builders Catalog for detailed information on Pittsburgh Plate Glass Company products.

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A TYPICAL HOME OF THE CURTIS HILLS DEVELOPMENT CORP.

INTERIOR OF A

Mr. Morris Gross of the Curtis Hills Development Corporation, and Mr. J. Royal Aldrich of Contemporary Homes, are successful builders in the Philadelphia area who have learned the many advantages of extensive use of Philippine Mahogany. Of interest to builders throughout the country is the fact that their experience shows the use of this fine tropical hardwood adds very little to the cost — yet greatly increases the appearance and sale ability of their houses.

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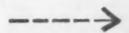
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# COOLING...what's new...

As year-round air conditioning moves from "luxury" to "included" class, wise builders keep up with wide range of equipment available

Central air conditioning for homes has come of age this year. Builders now have three main answers to the mounting demand for year-round temperature control. They can:

 install combined heating-cooling units from scratch, with a single duct and register system

 arrange the heating system for later addition of the cooling equipment

 build-in wall receptacles for inclusion or later addition of room units. For both original inclusion and later add-on, you can find equipment to fit any mode of construction's slab (closet or attic units, with attic lines); basement-less (counterflow with sub-floor lines); crawl-space (horizontal heating unit and cooler). Both forced air or "wet" heating come with or can be fitted with companion cooling equipment, with little or no supplementing of distribution lines.

Most manufacturers now offer both water-cooled and air-cooled condensers. The latter, once an expedient forced by restrictions on water, has been brilliantly turned into a space saving asset: the condenser-compressor unit, or "high side," is set outside, and the evaporating coil can be separated from it and fitted above or below the furnace, or even in the plenum or duct, taking no floor space.

This round-up is selected to give an idea of what is available in various categories: basic equipment, ductwork, diffusers, etc.





ROUND PACKAGED COMBINATIONS SHOWN ON THESE TWO PAGES use the same distribution system for both heating and cooling. Some, like the Worthington 2 or 3 ton SCYH (oil-fired model shown above left) and the Westinghouse RG and RO, feature a self-contained removable water-cooled summer unit which can be purchased later and slid into the bottom of the case. The SCYH routes the cool air through the ceramic coated heat exchanger, then to the warm air ducts, and uses no damper. The filter shown beneath the unit is an optional sub-base adaptor for under-floor return. Worthington also offers a liquid chiller system to go with hot water heating. The Typhoon S-W gas 2 or 3 ton is shown (right) as it was installed in a closet in the Austin Air Conditioning Research Village. Notice return grille at bottom. Cooling coil and condenser are of copper.



waterless conditioning uses outside space for condenser unit. Chrysler Airtemp features the "Space-Saver inverted-V coil requiring only 14\/2" above a gas or oil warm air furnace. The coil case may be installed with the furnace and all ducts connected, with the coil itself to be added later, if finances require delay.

Each V-coil has two cooling coils, each of 3 rows of 3/3" copper tubes, 12 tubes per row, with 13 aluminum fins per inch, total face area 3.21 sq. ft. Similar details apply to the counterflow type evaporator, except that the twin coils are mounted parallel vertically.

For furnaces without adequate blower capacity, evaporator blower units are available—a common feature in the field. Condenser units, either the air-cooled type shown in a typical outside installation, or water-cooled, are carefully rated in several sizes to meet the requirements of the various evaporators offered.





ECONOMICAL COMBINATION PACKAGE, STRESS-ING SMALL SPACE, is the *Rheem* Year 'Rounder, with a gas furnace and a 1½ hp cooling unit taking 26" by 30" floor area, with a patented automatic zone control to handle 1800 sq. ft. Dampers direct 80% of the cooled air to bedrooms at night and living areas by day.

An optional air-cooled condenser is available for remote location, for which the only field installation required is the running of the customary two refrigerant lines. The Year 'Rounder has automatic controls, the only field wiring being the low voltage wiring to the thermostat. The air filters may be installed on either side or on the bottom. A single blower serves both heating and cooling units and can be slid out of the jacket.

Rheem also sells a window unit, the *Imperial* (shown ready to receive standard rectangular duct work), which can be used for several rooms, It comes in  $\frac{3}{4}$ , 1,  $\frac{1}{2}$ , 2 hp.

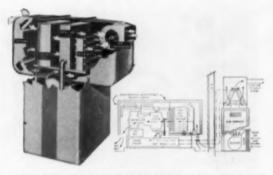




HOW TO ADD COOLING TO A HOT WATER SYS-

**TEM** is a challenge met this year by several firms. A "Wet Package" for year-round conditioning by *Hydrotherm* (left) combines a gas-fired boiler with a completely assembled water chiller in a steel cabinet 18" by 26", standing 54" high. It can be connected with forced convectors and baseboard systems for homes and small commercial establishments. Water chiller, placed in the bottom cabinet, can be added later, and can be removed for servicing.

Combustion Engineering's "Twin-Air" wet system stresses pre-engineering and pre-packaging for installation by the plumber, individual room zone control and economy of space. The vertical unit shown measures 24" by 2434" by 57"; the horizontal unit, with the same two components side by side, is 48" by 2434" by 36" vertical. It uses blower-equipped convectors in each room. The self-contained water-cooled chiller unit is sealed.



gas operated cooling unit has been combined with the Servel furnace in a year-round package. There are no moving parts in the absorption-type water-cooled unit. There is no compressor. Steam furnishes the motive power, and causes the refrigerant (water) to boil out of solution in lithium bromide, the absorbent. Since the unit works under a vacuum, water boils at lower than 212°, then it is condensed, and it changes to water vapor again in the evaporator, or cooling coil. The 2-ton unit takes 8.7 sq. ft. of floor space. The 5-ton unit is shown above.

Coleman is making final field tests on a gas motordriven unit (right), 3 and 5 ton, to be on the market next year. The refrigerant circuit is entirely self-contained. Chilled liquid lines lead from the remote unit to the inside cooling coil. Research on other methods of gas-cooling, binary jet, adsorption and open absorption is less advanced.



HEAT PUMP USES ELECTRICITY, BUT NO FUEL. It is growing in popularity, especially in cheap current areas, as its efficiency is improved in exchanging heat with outside air or water in winter and summer.

The air-to-air heat pump, such as the exposed Westinghouse HP-52 shown above and the General Electric
Weatherton, is essentially an emperor-size two-way or
"reverse cycle" window type, taking warmth from the
interior in summer and venting it outside, and taking
warmth from outside air in winter (even temperatures
below freezing are theoretically feasible) and using it
inside. Until the present, northern installations have
been supplemented by other heaters.

An air-to-water unit by *Typhoon* uses ground water, which generally remains of constant temperature the year round, as the receiver and source of heat. A water-to-water heat pump by *Acme Industries* of Jackson, Mich., sends hot water through radiant ceiling panels.

## COOLING what's new...what's ahead

Continued from page 95

They'd pay \$800 more for a year-round air-conditioned home, 81% of 600 visitors to the Wichita Association of Home Builders Parade of Homes said in a poll.

A word to the wise builder: cooling is leaving the luxury class and becoming a staple; also, the price is coming down. Can you talk cooling to buyers?

Cooling requires no revolutionary changes in technique. A well-constructed house is the best headstart; solidly framed, well-based, insulated, vapor-barriered. But cooling will make you freer in some respects, more careful in others. Location and height of windows are more flexible (cross ventilation is unnecessary). But insulation demands careful venting of moisture-making appliances.

At your latitude, how big must an overhang be to help reduce cooling load? If you like big glass expanses on west and south, are there trees to shade them? White roofs, the best reflectors of radiant heat, are both stylish and sensible. Attic fans are a big help.

Instead of "horsepower" or "tonnage" ratings, demand BTU capacity, with 12000 BTU-hour as the "one-ton" figure, based on fixed conditions of outside

air temperature and humidity set by the Air-Conditioning and Refrigeration Institute.

For the future, remember that the gas industry is striving to reduce the big spread between winter and summer loads, and is exploring at least four techniques of utilizing gas for summer cooling.

To prevent the need to charge refrigerant lines in the field for remote air-cooled condensers, one technique is to send chilled water (rather than the usual freon) to the inside cooling coil from the remote condenser, which can then be hermetically sealed. The Norman Co. unit, for example, requires field connection of water pipes only.

FHA approval is normal for permanent cooling installations. You can suggest open-ending to new home purchasers who plan a later add-on unit, but it makes more sense to include and enjoy cooling from the start.

Careful rating pays off in original cost and efficiency. A too-strong unit will pull hard for a bit, then stop and let humidity pile up.

And pin up this prediction: within ten years, few houses will sell without at least optional cooling.





#### VERSATILE ADD-ON OR INDEPENDENT MODELS

can be treated in two ways: as a separate system with its own ductwork; as an add-on to a warm air system, using already existent ducts and, if the existing blower is inadequate, to supplement with its own blower. The Frigidaire Multimatic or ACV unit in 2, 3, or 5 hp (the 2 hp is shown, left) is water-cooled. The 2 and 3 hp models can be purchased without the blower section, or without the water-cooled condenser if the buyer desires the remote air-cooled type. It can be installed with "anybody's furnace."

Sunbeam's self-contained HCA-2F and 3F features a sealed refrigerant circuit and "Humid Weather" control, which allows extra moisture to be removed from the air without over-cooling. It can be tied in with forced air heating systems, or used independently with its own blower. It is water-cooled (right). Lennox CABI, Mueller Climatrol and Coleman units serve similarly.

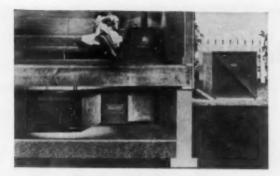




EVAPORATION COIL ADDED IN THE PLENUM or ductwork above standard furnace model is provided by several heating manufacturers. This opportunity to save space gives special use to inverted-V coils such as Chrysler's and Coleman's (shown in cutaway above). Several firms, such as Mueller and Williamson, provide a boot to be installed with the heating, for cooling to be added later.

The Coleman 3½" pipes require higher blower pressures than are customary in larger ducts. Both warm air and cold go through the plenum in which the coil is installed. Other systems use a damper to bypass the section not in use. Some add-on units, like this one, fit only one firm's furnace; others adapt more widely.

The Coleman remote air-cooled condenser (right) is of 2 or 3 ton rating, and stress the air-mist or wet bulb feature, which sprays water against the compressor to help the surrounding air reduce its temperature.



TYPICAL CRAWL-SPACE INSTALLATION, with a horizontal furnace and an outside air-cooled condensing unit, uses the Carrier Conversion Weathermaker. The evaporating coil package is inserted between the furnace and the beginning of the duct system, all suspended from the floor joists. The furnace blower is used.

If there were no slab under the crawlspace, careful insulation of plenum (right of coil) and the exposed ductwork to protect against ground moisture and to prevent cooling and heat loss would be necessary. Outside condenser units need a firm base, usually of concrete, and weatherproof and tamperproof casing.

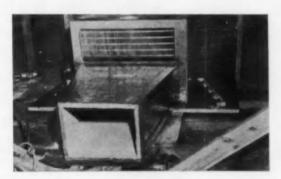
Carrier provides a small thermostatic control panel mounted next to the furnace thermostat which handles changeover and controls cooling. Other firms offer manual switch changeover, or completely automatic year-round temperature control.





COMPACT AND STURDY TO SUPPORT A COUNTERFLOW FURNACE in small space, add-on cooling units use the furnace's blower, filter and ducts. The Lennox CH2 model shown is water-cooled and therefore can be 100% hermetic. The same cabinet takes both the 2 ton and the 3 ton units, which can slide out on service rails like a file drawer. The same model can be used above a low-boy up-flow furnace, fitted into the plenum or ductwork. A horizontal model is also available for attic or crawl space installation.

For remote air-cooled installations, Lennox offers the LS series or "low side" cooling units for up, down, and horizontal flow, to go with HS condensing units. The diagram (right) shows how a downflow closet system would shape up, with ducts under the floor and condenser outside. Carrier, Williamson, Coleman, Niagara and several others manufacture similar models.



AIR-COOLED UNIT IN A SINGLE PACKAGE has this advantage over the remote-condenser type: it can use the moisture taken out of the air by the evaporator coil ("low side") to help cool the "high side." Thus the slinger ring on a window unit helps throw the condensate on the compressor.

Packaged or remote, air-cooled units must vent to the air, directly or through vent-ducts. The far side of the Vornado B200A shown above is placed against an attic louvre. The duct in the foreground is the end of the return system. The evaporator coil shown above it will be covered by the cooled air supply duct. Manufacturer O. A. Sutton claims \$600 as a feasible price.

The ductwork is made of prefabricated, pre-scored 34" fiberglass, easily cut on the site. It is covered outside with reinforced aluminum foil. Twin compressors permit supply of 22,000 BTU hr. at 95° outside, or half that in mild weather.





BUILT-IN INDIVIDUAL ROOM CONDITIONERS appeal to builders for three reasons: they make an attractive optional extra or included feature in selling a house; they can be included in a long-term mortgage; they avoid the unsightly clutter on the window sill.

Prospects can choose where to have the frames or sleeves installed, and whether to install the units immediately or later. The Lewyt Air Conditioner (sleeve installation, left, and half-exposed unit, right) reports acceptance of wall built-ins by builders of both homes and apartment houses. The latter are relieved of the need for central cooling, with the usual breakdowns and expensive maintenance due to careless tenants; the wall units must be maintained by the tenants, who purchase or rent them. The ½ and ¾ hp Lewyt units fit a 15" depth, 14½" height, 32" width. Carrier and Chrysler merchandise wall units for various types of buildings, some with remote controls.

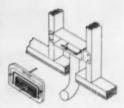




CEILING DIFFUSERS ARE A NATURAL for a central cooling system, since cool air descends. The turbulence set up by the air shot sidewise by the supply duct mixes the entering cool air with room air, and there is no draft. In winter the impetus of incoming air overcomes the tendency of warm air to stratify upward. tests show. Circulation all year round is further aided by the baseboard return grilles (hidden behind the sofa in the picture), with their "pull-down" effect.

The Connor Kno-draft diffusers shown are declared to mix five parts of room air with one part of supply air within four feet of the diffuser, which come in various sizes for various room requirements. They permit complete freedom in placement of furniture. With ceiling diffusers attic installation of ducts is necessary, of course, and insulation of the ductwork is required to prevent condensation and loss of cooling.





REGISTERS DESIGNED FOR COOLING as well as heating require about 30% more blowing power than is needed for heating alone, since they cannot depend on convection to help distribute the cool air from the central coil and blower. Keep this figure in mind when rating the components needed for combined heating-cooling, or deciding whether a simple add-on cooler, without extra blowing capacity, is sufficient.

Control of the cool air stream to prevent drafts is another factor to be kept in mind. General Electric puts out its own distribution system, based on a 4" duct and the new Air-Wall register. This sends a fan of warm or cool air up the wall in which it is placed, preferably under a window (as shown). The stackhead fits between studs. Furniture can be placed close to the wall without impeding cooling action. Coleman's baseboard blender has a similiar fan effect.





MOVING THE AIR CHILLED BY WATER in the "wet heat" piping system is solved in several ways. Vulcan, pioneer in fin-tube heating, uses a standard trimline baseboard (left) for circulating the chilled water, and blows air from a central fan to get the cool air into the room. A special 3" flexible air duct carries the air to the space under the entire length of the baseboard, and aspirates room air in a 1.25 to 1 ratio. Pre-planning requires installing the air ducts along with the baseboard, or at least leaving a space for them, and a drain duct to handle condensation.

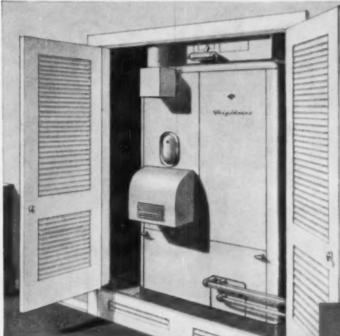
Unarco's Dual-Vector (right) has a fan in each room unit, which fits between studs. The units are set in series for use with one- or two-pipe forced hot water systems, and permit individual room control. Fedair by Fedders is a coil-and-blower using hot or chilled water from a remote source for larger rooms.



WATERLESS COOLING AND MODERATE PRICE INSTALLATIONS are two noteworthy trends this year, illustrated by these condenser units at the Glencoe G. I. development near Cincinnati. Because of demand, the last 231 of 450 houses included or offered optional cooling. Slab houses at \$13,750-\$14,100 have mandatory Williamson counterflow or in-duct cooling. Slabs at \$15,000-\$16,400 and basement houses at \$14,300-\$14,800 are roughed in for optional future cooling at \$1,200 extra. Before warm weather set in, 70 mandatory units were sold, and 21 optional.

In the \$50,000 price range, 101 out of 103 units of the Stonehurst subdivision in Tenafly, N.J. by James D'Agostino, were sold with year-round General Electric conditioning units. In all, 150 houses are planned. Last year Harold Sarshik of Haddonfield, N.J. sold 85 \$15-\$18,000 mandatory Chrysler air-cooled houses.

# Frigidaire "Builder Air Conditioning" Now Answers All Your Needs . . .



Combination heating and cooling.

Air conditioning that adds on to forced air heating systems.

Separate air conditioning.

Water-cooled or air-cooled operation available.

Whatever your building plans are, there's a Frigidaire air conditioner that can fit right into them . . . fit easily without adding great new difficulties or costs to your homes. Planning to accommodate Frigidaire is easy because these conditioners have been designed from the ground up with modern building methods, construction codes, and installation difficulties all in mind. It's the new way—the right way to make your homes faster selling, more desirable, and priced for extra profit through the magic of air conditioning.

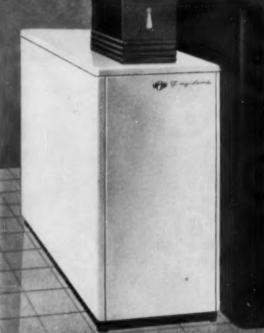
#### Combination Heating and Cooling Unit / No Larger Than Many Furnaces Alone

The Year-Round Frigidaire Conditioner is compact—only 46" wide, 25" deep at the base, and 75" high. Installation is simple. Single, combination unit can actually cut installation costs. Designed for basement, utility room or closet. Offers a choice of heating fuels, either gas or oil fired. And a choice of 2 or 3-ton cooling power supplied by famous Frigidaire XD Meter-Miser Compressor. Cushioned blower for quiet operation. Large, efficient air filter.

#### New Multi-matic Conditioner Provides Complete Installation Flexibility

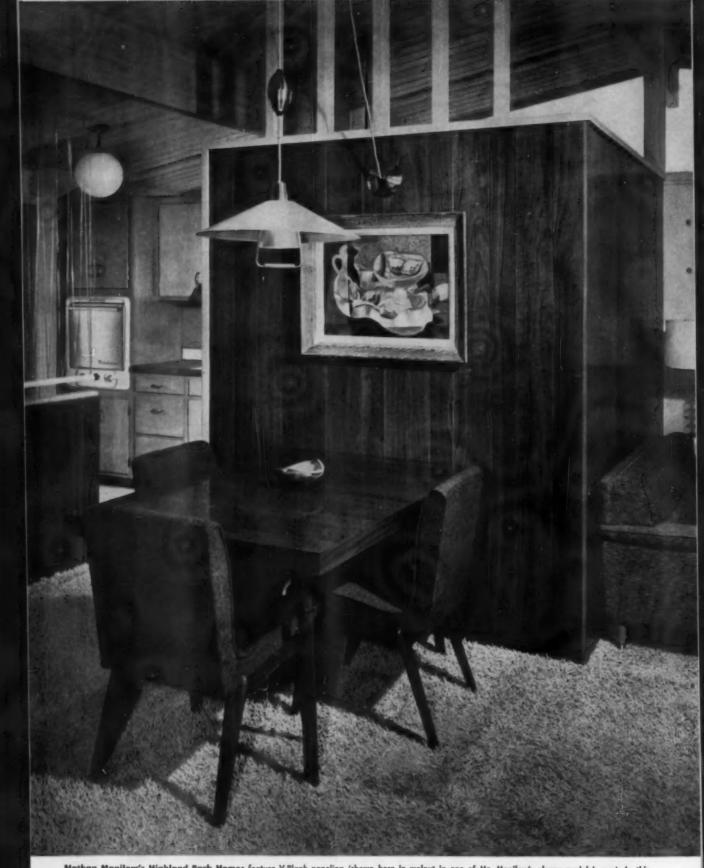
Available in 2, 3 and 5-ton models. They are easily teamed up with forced air furnaces using their own blower or that of furnace, and existing ductwork. They also operate as a complete, separate air conditioner. And they can be used with air-cooled, evaporative or water-cooled condensers. The Multi-matic unit also divides into two sections so cooling coil and blower may be installed in one place and compressor in another... particularly convenient for crawl spaces, attics, etc.

For further information call your Frigidaire Air Conditioning Dealer, Frigidaire Distributor or Factory Branch. Or write Frigidaire, Dayton 1, Ohio. In Canada, Toronto 13, Ont.



## Frigidaire Conditioners

BUILT AND BACKED BY GENERAL MOTORS



Nathan Manilaw's Highland Park Homes feature V-Plank paneling (shown here in walnut in one of Mr. Manilow's eleven model homes). In this 600-home project, Mr. Manilow uses six different woods for paneling, Weldwood doors throughout the house, and a Weldwood Stay-Strate® door for the entrance. Other Weldwood panels in all recreation rooms.





Entrance door to the Manilow homes is a Weldwood Stay-Strate Door, guaranteed to end door warping and sticking problems. At left is Weldwood Texture One-Eleven® paneling.

V-Plank\* paneling, shown here in Samara, has grooves spaced to give the effect of random planking; a groove occurs every 16", hiding nails when paneling on studs.

In the Chicago suburbs

## Weldwood "brand-name" wood paneling sells homes

That's why Nathan Manilow - builder of the famous Park Forest development-chose beautiful Weldwood paneling for his latest group of homes

Today it's the brand name that sells! And surveys show that no other name in wood paneling is so well known among consumers as Weldwood. Nathan Manilow, President of American Community Builders, Inc.-builders of the worldrenowned satellite city of Park Forest, at Highland Park Highlands, Highland Park, Ill.-takes full advantage of this consumer appeal to sell homes,

Proved home buying appeal. The rich, warm beauty of Weldwood paneling adds a look of quality to a home that you can get no other way. Imagine the room at the left without Weldwood! Weldwood gives the whole room a sparkle and an out-of-the-ordinary look that sells homes.

For every price class home there's Weldwood paneling to fit

the home and the selling price. For example, a typical 12' x 8' wall of walnut V-Plank costs you only \$75, and it's completely pre-finished at the factory . . . no staining, sealing or waxing. V-Plank also comes in oak, Korina, Honduras mahogany and Samara.\* Or take low-cost Sea Swirl® . . . this beautifully textured paneling costs only \$30 for a 12' x 8' wall!

Send the coupon today , . , find out how Weldwood sells homes faster, even helps you get a better price for your homes. Or, visit any of the 87 United States Plywood showrooms in principal cities.

Free display plaque in genuine walnut (11%" x 71/2"), features the famous Weldwood Lifetime Guarantee. It's perfect for model home brand-name identification. Send coupon for more information.





## Weldwood

THE BEST KNOWN NAME IN PLYWOOD

UNITED	STATES	PLYWOOD	CORPORATION	

Weldwood Building, 55 West 44th Street, New York 36, N. Y.



By the makers of famous FOLDOOR—the one complete line of FABRIC-COVERED FOLDING DOORS



Specified by architects for finest homes, schools, churches, institutions



First door in the middle-price range to offer all 4 "plus features"



Choice of smart builders and homemakers in the lower-price field

AMERICAN BUILDER

# first folding door with all 4 PLUS features... at a cost you get back many times over!

Whether you already make your homes more salable by installing folding doors . . . or whether you have been holding back for want of a better door . . . this news is for you!

It concerns new Foldoor "Beautyline"—with four great plus features—now available from Foldoor Distributors and Dealers. Consider this combination of exclusive advantages:

- 1. MORE STOCK SIZES—11 in all—to fit virtually every residential opening, as well as in many stores and offices. With Foldoor "Beautyline" you eliminate swing space, give about 7 sq. ft. of extra living space (worth \$80-90) around closets, wardrobes, between rooms, etc.
- 2. EASIEST TO OPERATE—Unlike "accordion type" doors, FOLDOOR is the *slimline* Multi-V door with 61% less hinge friction. The fabric is always back-to-back; it forms no large air

pockets to retard easy operation. Solid nylon trolley wheels assure lifetime feathertouch action.

- 3. MORE NEW FEATURES—Only Forpoor "Beautyline" in the modest price range offers such features as matching cornice, super-rigid Truss-Embossed hinges, all-metal hardware—and many other exclusives.
- 4. AS LOW AS \$22.45\*—list complete. Packed in individual cartons, for easy stocking and reshipping. Complete installation instructions and self-selling tell-all tag on every door.

Compare the space-saving, sales-making advantages of Foldoor "Beautyline" for your new homes. Contact your Foldoor Distributor or Dealer for all the good news on availability, sizes, specifications and costs. Or write:

Holcomb & Hoke Mrg. Co., Inc., 1545 Van Buren St., Indianapolis 7, Indiana,



## Ask your FOLDOOR distributor for "Profitunity" sales boosters

Your Foldon Man will work with you in developing a program to help speed your home sales—with Foldon "Beautyline."

## For quality at rock-bottom cost ... built to retail from \$19.95\*

There's room in the cost sheet of even low-budget homes for this quality and value leader. No other fabric-covered door can begin to match it—at the price.

\* ALL PRICES SLIGHTLY HIGHER IN WESTERN STATES

In Canada: Foldoor of Canada, Montreal 26



## **EXTRA BEAUTY!**

## RUBEROID Olor- Frained

## ASBESTOS SIDING with UNDERCOURSING

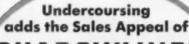
Design-wise builders know that Ruberoid Color-Grained Asbestos Siding with undercoursing\* is the sure way to build attractive side-walls with extra sales appeal. Undercoursing creates a heavy shadowline at each course, adding dramatic character—a Luxury Look—to the beauty of the sidewall design. (In application over non-wood sheathing, undercoursing provides the only safe, sure anchor for nailing.)

Color-Grained Siding is the fastest selling asbestos siding on the market because it has every sales feature that builders want. A wide range of exciting decorator colors . . . the special Autoclaving proc-

ess that prevents shrinking, warping and cupping . . . the Duroc\*-with-

Silicone finish that "locks" the beauty in for a housetime.
Ruberoid Color-Grained

Asbestos Siding with undercoursing is a sidewall combination that can't be beat for design, beauty and economy. See your Ruberoid dealer today for further details.



## SHADOWLINES



#### Undercoursed Color-Grained Siding costs 25% less!

A country-wide check of current material and application costs shows that Color-Grained Siding with undercoursing costs 25% less, applied, than wood shakes or clapboard. Here is a big area for cost savings.

\*Write today for your free copy of the Ruberoid Undercoursing brochure. It contains detailed application instructions on the inexpensive wood strip undercoursing method.

The RUBEROID Co.

**Asphalt and Asbestos Building Materials** 

Why beat the bushes?

The <u>sure</u>, easy way to get more business is by using



### Dodge Reports

In this highly specialized field of construction you need daily information on who is going to build—what—where and when.

Where is YOUR stake? Houses...general building (not including houses)...engineering projects... or all three? Whatever you need to know about there is a specialized Dodge Reports service, today, that will fit your needs.

Most of the leading firms and salesmen in construction depend on Dodge Reports nowadays. They know they cannot keep up with all that's going on, in any other way.

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#### BUILDER PASFIELD has right idea



Like Builder Pasfield, you want your houses to stay modern and stay sold. One way to insure that is to make Electric Water Heaters standard equipment.

Home buyers like the fact that an *Electric* Water Heater doesn't heat the area where it is installed, since the tank is completely insulated. And, of course, women like the ample, automatic supply of hot water so necessary for efficient operation of such work and time-saving appliances as automatic clothes washers and dishwashers.

Another thing—Electric Water Heater placement is easy, because it can be made without regard to the location of any flue or vent, close to where the hot water is used. Shorter hot water pipe runs reduce installation costs. To the customer it means less heat waste and lower operating cost.

It will pay you to make Electric Water Heaters standard equipment in the homes you build!

Electric Water Heating ...it's tops!

"We design and build our houses to stay modern. That's why we consider the Electric Water Heater indispensable. Home buyers say they never run out of hot water with an Electric Water Heater.

Builder

Wynnewood, Pennsylvania



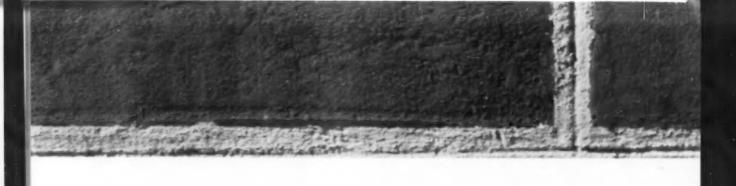
#### **ELECTRIC WATER HEATERS**

HELP CLINCH HOME SALES!

ELECTRIC WATER HEATER SECTION

National Electrical Manufacturers Association, 155 East 44th Street, New York 17, N. Y.

ALLCRAFT . BAUER . C.E. HEATMASTER . CRANE SELECTRIC . CROSLEY . FAIRBANKS-MORSE . FRIGIDAIRE . GENERAL ELECTRIC . HOTPOINT . HOTSTREAM JOHN WOOD . KELVINATOR . LAWSON . MONARCH . NORGE . PEMCO . REX . RHEEM . SEPCO . A. O. SMITH . THERMOGRAY . WESTINGHOUSE





#### Brick sells homes for this builder

Cut-away model shows
quality construction, easy maintenance

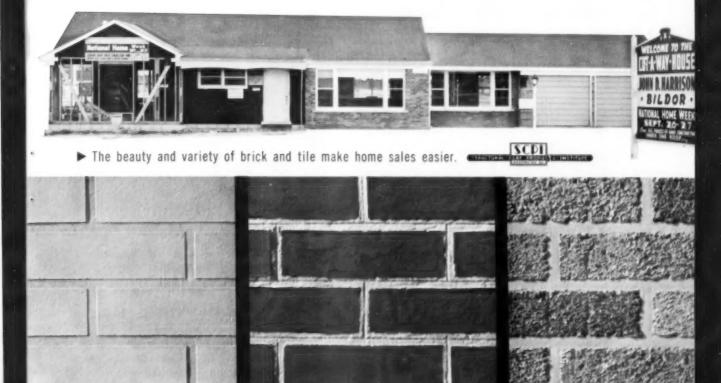
This cut-away model home helps John D. Harrison of Birmingham, Michigan, cash in on his customers' known preference for brick construction\*.

Says Harrison, "In a brick home, this is a highly competitive sales idea. It lets customers actually see the advantages of a brick exterior and other quality features. It's responsible for about 50% of my sales."

Profit by the experience of Harrison and thousands of other builders! Give your customers what they want—the enduring beauty, lifetime maintenance-saving and all-weather protection of brick homes.

\*Surveys show that home buyers prefer brick 2 to 1 over their second choice, Write for details.

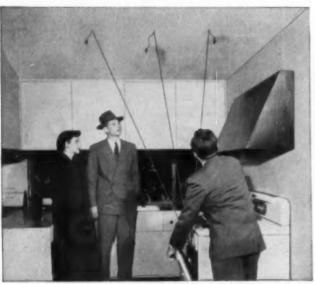
Structural Clay Products Institute 1520 18th Street, N. W., Washington 6, D. C.



#### What to look for in a Sound-Conditioning material for homes

A quiet house is easier to sell.

Check these points before deciding which material to use in your houses



Is it officient? All ceiling tiles aren't sound-conditioning materials. Armstrong Cushiontone is a real acoustical tile that absorbs up to 75% of the noise that strikes its surface. You can demonstrate it by slamming a cabinet door or striking a ruler against a counter top. Your prospects will hear how the noise is swallowed up . . . and will be convinced that Cushiontone gives your homes extra comfort and value.



Is it expensive? Acoustical ceilings vary in price—economical Armstrong Cushiontone adds little to your costs. Cushiontone is a complete ceiling in itself: it replaces plaster or drywall and comes factory painted, ready to install. No special tools or training is needed to install it. For full information, see your Building Products dealer or write Armstrong Cork Company, 4208 Rider Avenue, Lancaster, Pa.



Is it good looking? New home prospects want smart style as well as comfort. When they see ceilings of the new Cushiontone Full Random, its appearance alone will make a favorable impression. Cushiontone's nondirectional pattern together with its smooth white finish brings a fresh new beauty to residential ceilings.



is it easy to install? Ease of installation saves you money on the job. Cushiontone now comes in a new tongue-andgroove joint which your men can staple as well as nail. The joint speeds installation, helps level each tile, and hides all staples or nailheads. Cushiontone is also available with butt edges for cement application to solid bases.



Is it nationally advertised? Well-known brand items impress your prospects. Each month full-page Cushiontone ads appear in The American Home and Better Homes and Gardens to tell 7,000,000 families about the new comfort of quiet. Armstrong Cushiontone is the first acoustical tile to be promoted nationally for use in homes.



Cushiontone® \* Temlok® Tile
... to quiet and beautify homes

# why put up with cracks? in 1. acoustical plaster 2. exterior stucco

#### PENMETAL EXPANSION JOINT

- RELIEVES: Stresses and strains due to expansion-contraction
- PROVIDES: Work stop and ground
- ELIMINATES: Makeshift substitutes

Unsightly cracking of exterior stucco and acoustical plaster ceilings is not incurable. Penmetal's new and ingenious expansion joint takes up the stresses due to expansion and contraction.

This unique, low-cost joint has a scientifically designed ground that expands and contracts with the movement of plaster or stucco. It also provides a work stop, essential in acoustical plastering. Saves time and labor too, being a one-piece joint and ground. No more improvising at a work stop. No specialorder items to be made up.

Penmetal expansion joints come in ten-foot lengths, with ½" and ½" grounds. Write for address of nearest dealer.

PATENT APPLIED FOR



#### PENN METAL COMPANY, INC.

General Sales Office: 205 East 42nd Street, New York 17, N. Y.

Plant: Parkersburg, W. Va.

PM-45

AUGUST 1955

101



CUT-OFF SAW is workhorse of Gaddy pre-cutting operation. Long saw table extends clear through shed in background, where 2 x 6 window frames are routed out after initial cuts have been made on saw. Frames are then assembled in shed



FINAL ASSEMBLY of windows consists of fitting aluminum sash in frames, then nailing on redwood surrounds. Large 16-foot frames at front of house are built in same manner—a job that many builders turn over to a millwork shop

#### How these Washington builders

#### their idea of a



THE GADDYS—Anthony, left, and his uncle, Joseph. Their two-story houses in Fairfax County, Va. can be classed among the best "true contemporaries"

The word around Washington is that neighboring Virginia has a "hot" new development called Holmes Run Acres. It really ought to be called Sherwood Forest because its street names are taken straight out of Robin Hood. Anyway, the word is that in the contemporary, \$18,000-\$21,000 class you can't beat these two-story houses. Trouble is, they are all sold out.

The builders, Joseph and Anthony

- . They set up in-line pre-cutting operations
- They chose a design that was easy to sell advanced but not too radical
- . They sited each house to fit the terrain

Gaddy, saw Holmes Run Acres as a chance to develop their idea of a foolproof house. Here's a 10-point break-down on how they did it:

1. They hired top-level architect and engineering service.

They split their tract into 30 generous-sized lots—many with 100-foot frontages.

 They permitted each lot to retain as much undisturbed earth and trees as possible.

They didn't cut corners. Lots, steps, walks, retaining walls, courts—all were included in original price.
 They got complete, individual siting for each house—based on topographical survey of the area.
 They made a few materials—red-

wood, brick and glass—go a long ways—without gimmicks.

7. They showed how a ground floor could be made to work as hard as the top floor—"bi-level living."

8. They stuck to one basic plan but got plenty of variety just by reversing it and combining it with two different carports.

They built their own trussed rafters, window frames and other items with on-site power tools.

10. They provided large 15 x 16½ foot recreation rooms.

 With an open plan and high, sloping ceilings they made their living rooms look bigger.

12. They used plank and beam construction, with pre-finished planks



JIG TABLE for assembling trussed rafter enables two men to turn out a rafter every half hour. Pitch of 2/12 determines how blocks at ends and peak are placed. Outrigger is 2 x 4 extending 2½ feet past double rafters to form roof overhang

#### worked out foolproof house

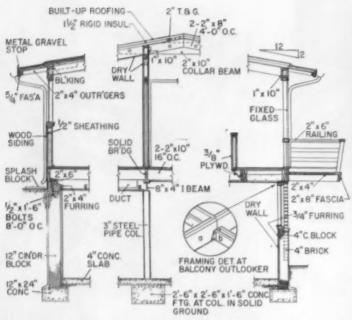


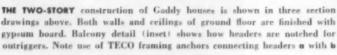
SPACED 4 FEET on center, with 13 of them to a house, trussed rafters are 24 feet in length. Nailed to these are 25-inch V-jointed, tongue and groove planks. Insulation is 2-inch fiber-glass topped with hot-mopped, coral rock surface

RAFTER CLOSEUP shows how short collar beam acts as lower chord of truss. Main beam is placed off-center and is carried by posts. Local codes are strict about framing, require walls to have let-in bracing (lower right)



#### Gaddy frames go up fast: average time







#### Wood and gypsum board cut interior



UNDERSIDE OF ROOF planks is pre-stained before installation and left exposed. Windows look out on balcony, with lower sections equipped with aluminum sliding sash. Lone wall in picture has 4-inch type insulation over sheathing



FIREPLACE has sizeable niche for logs, quarry tile hearth. Side entrance is shown to right of fireplace, with dining area beyond. The Gaddys figured out that it took them about three to four weeks for sub-contractors to finish interiors

#### nineteen hours



#### finishing costs

THESE FIRMS AND PRODUCTS HELPED MAKE THIS HOUSE A SUCCESS:

G & G Construction Co., builders
Keyes, Smith, Satterlee & Lethbridge,
architects

James Payne, engineer
Alwintite Aluminum windows
American Standard plumbing
Benjamin Moore paints
Cabot stains

Hotpoint 10½ cu. ft. refrigerator Johns Manville 4" rockwool insulation National garbage disposer

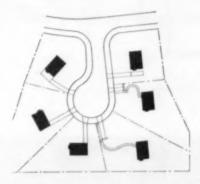
Sunbeam gas hot air furnace
U. S. Gypsum wallboard

Welbilt gas range

INDIVIDUAL SITING, COURTS
ARE GADDY TRADEMARKS...



FRIAR TUCK COURT, one of three cul-de-sacs in Holmes Run Acres. Other two also have Robin Hood names—Marian Court and Little John Court. Extensive preliminary surveying was insisted upon by builders before plan of whole area could be drawn up

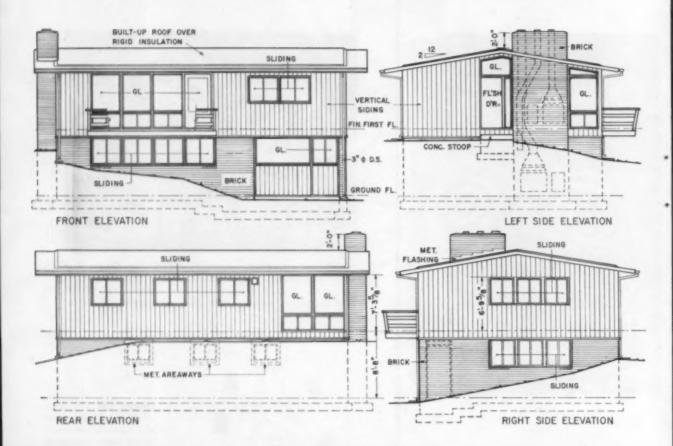


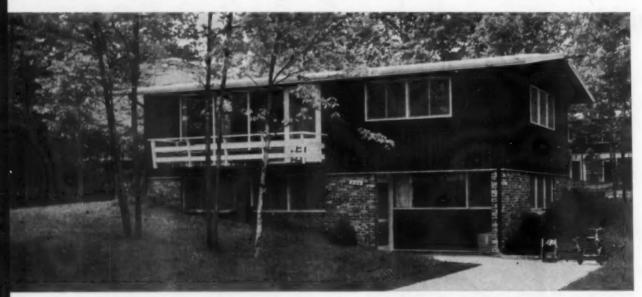
TYPICAL SITE plan of a cul-de-sac. Houses and lots, sidewalks, streets all closely follow contour of land. Serpentine walks leading to ground floor entrances indicate sharp rise in elevation



WHILE SLOPING LOTS suggested split levels, Gaddys felt that a cleaner design could be achieved with two-stories. With drops of 40 feet for some lots, and front-to-back slopes ranging up to 9 foot, the builders had to keep ground floor windows high

#### Gaddys get more out of two-story plan with





ON FRONT-SLOPING LOTS, ENTRANCE IS THROUGH GROUND FLOOR

BASIC HOUSE has balcony side toward street and is set well back on lot. Front entrance is tucked in ground level. Architects didn't hesitate to combine old brick with redwood vertical siding, giving a flexible, cleancut design

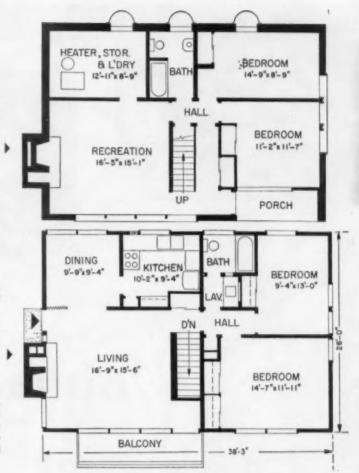
#### "bi-level living"

ALL-IMPORTANT ground floor in Gaddy house has multiple functions, is especially built for children. It houses heater and utilities in one corner, has bath, bedrooms and recreation room in others. Gaddys believe ground floors should provide useful, attractive living space

FLEXIBILITY of design is evident from comparison of these elevations with photo at lower right, where drop siding is used for variation. Another alternate: full glass panel for lower bedroom. Note how flues of furnace and water heater on ground floor are housed in chimney

TOP LEVEL or first floor plan has main entry at center stairway, another entry at fireplace. Wood screens separating living and dining areas are optional. Note bath-and-a-half arrangement at sacrifice of little closet space in bedroom. Bookshelves line top of stair well

TYPICAL TREATMENT of windows is shown here. Sliding sash is used for bedrooms and kitchen, combination fixed and sliding for dining and living rooms. A comparison of rear elevation shown here with house below right indicates they are the same—but carport is added





ON BACK-SLOPING LOTS, ENTRANCE IS
THROUGH CARPORT

LONG, LOW LOOK of one-story house is achieved by turning or reversing plan. This isn't hard to do when both front and rear elevations have large window areas. Carport was also added. There are at least six versions of same plan



PLASTIC, WORKABLE mixes made with Atlas Duraplastic Cement facilitate faster, easy placement... assure good appearance and uniform distribution of aggregate.



DURABILITY AND GOOD RESISTANCE to freezing-thawing weather make Duraplastic-made concrete a good choice for both structural work and exposed surfaces,

- Better workability
  - Easy placement

· Improved appearance with



BETTER FOR BLOCK, too, Atlas Duraplastic Cement makes a better-looking block with clean, true edges, rich face texture and good resistance to the passage of water.

#### **DURAPLASTIC\***

Speed construction progress on *your* next project with more workable, uniform concrete made with Atlas Duraplastic Cement. Duraplastic-made concrete is more plastic, holds together better... places easily in forms and around reinforcing.

You'll get more durable, better-looking concrete with Atlas Duraplastic, too. Duraplastic minimizes water gain and segregation... practically eliminates sand streaking and rock pockets...fortifies finished concrete against the destructive effects of freezing-thawing weather.

As for block, be sure yours are made with Atlas Duraplastic. You'll get a more attractive block with cleaner edges, richer face texture and increased resistance to the passage of water.

YET DURAPLASTIC COSTS NO MORE. You get a more workable, durable, better-looking concrete at no extra cost with Atlas Duraplastic air-entraining portland cement. Requires no unusual changes in procedure and complies with ASTM and Federal Specifications. For descriptive booklet, write Universal Atlas Cement Company (United States Steel Corporation Subsidiary), 100 Park Avenue, New York 17, N. Y.

OFFICES: Albany, Birmingham, Boston, Chicago, Dayton, Kaneae City, Minneapolie, New York, Philadelphia, Pittsburgh, St. Louis, Waco.

"Duraplasiis" is the registered trade-mark of the air-entraining periland cement manufactured by Universal Atlas Cement Company.



#### **DURAPLASTIC**

AIR-ENTRAINING PORTLAND CEMENT



Makes Better Concrete at No Extra Cost

UNITED STATES STEEL HOUR-Televised alternate weeks-See your newspaper for time and station



These "commercials" are rugged Ro-Way overhead type doors. And they especially prove their inherent mettle on multiple installations.

Many doors usually mean heavy traffic. Repeated daily wear and tear. But Ro-Way doors stand up. They're precision-made from selected west coast lumber and heavy-gauge, Parkerized steel hardware. Have mortise and tenon joints, water-proof glued and steelpinned. That's why Ro-Ways give year after year of smooth, quiet, dependable service.

Design-wise, too . . . Ro-Ways bear repetition. Side by side they satisfy your creative urge with clean, uncluttered lines. Yet you can freely express your ideas within the practical limitations of even modest budgets.

Logical conclusion: You can repeat "Ro-Way" in your specifications . . . and satisfy all your clients every time.

ALSO—a complete line of Ro-Way overhead type doors for 1- and 2-car residential garages. All available with standard or individualized decorative panels. Write for free literature.

FREE ARCHITECT'S MANUAL. Complete details, specifications, drawings, etc., on Ro-Way's entire line. Especially helpful in selecting just the right door. Your letterhead request brings you Manual 55 promptly. No obligation, of course.



ROWE MANUFACTURING CO., 756 Helten St., Galesburg, Illinois



Nationwide sales and installation service. See your classified telephone directory for nearest Ro-Way distributor.







"Architecturally proper" is a good way to sum up the fine appearance of the block wall of this modern mosonry home. Vibrapac Block construction lends itself to permanence and shelter security.

#### The beauty of building with modern concrete block is this: It's permanently beautiful!

The precision-like beauty and simplicity expressed by pleasing new textures, patterns and colors in Vibrapac Block are always in "good taste" . . . for exteriors and interiors. Whatever your plans call for in terms of size, design or investment, there's a proper adaptation that's practical and effective in Vibrapac Block or Bes-Stone Split-Block.

offers for building permanent beauty into homes (and other structures) include many practical advantages.

Obviously there's beauty plus fire safety in Vibrapac Block construction . . . and many other plus values such as: "built-in" insulation (due to the hollow block areas and multiplicity of tiny dead-air cells in the block itself) . . . assurance of comfort-

The opportunities modern concrete masonry able inside atmosphere, summer or winter, with winter heating-economies, too . . storm-safety, weather snugness . . . soundabsorbing qualities . . . permanent protection from termites and rodents, from damprot or deterioration by weather.

With all these and other plus values, the initial construction cost is low . . . financing becomes easier . . . insurance rates lower . . . upkeep, or maintenance, costs less . . . ideal

Busch house

architecture is at its best when



Planter made with Bes-Stone Split-Block

structural flexibility is assured . . . good resale value is certain.

Charming beauty for interiors, too! For complete interior walls and ceilings (soffit block ceiling and roof construction), or for "accenting" details like floral bays, fireplaces, etc., modern concrete masonry offers countless opportunities for distinctive beauty and colorful beauty. "Charcoal gray" and "coral," as well as other good color schemes, are "naturals" for modern concrete masonry. Helpful literature gladly sent on request.

BESSER COMPANY, Box 183, Alpena, Michigan-



, (Advertisement)

## MUNITERKE



Joints of Chase Copper Water Tube and Chase Solder-Joint Fittings mean a radiant heating job that lasts longer!

Because they're strong solder joints, the connections you make with Chase Copper Solder-Joint Fittings stay leak-proof for good!

And because Chase Copper Water Tube comes in long lengths of 60 to 100 feet, fewer fittings are required. installation is faster and easier!

Together, Chase Copper Water Tube and Chase Solder-Joint Fittings mean a quality radiant heating installation that will protect your reputation for good work! Both are available from your Chase Wholesaler.

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WATERBURY 20, CONNECTICUT . SUBSIDIARY OF MENNECOTT COPPER CORPORATION

AUGUST 1955

## ...built by specialists specially for builders

#### Builders:

Only a full line of sliding door hardware permits you to select the right type for every job. Handy Buyer's Guide takes the guesswork out of selecting and installing sliding doors; classifies the complete Kennatrack line; shows popular methods of installation.



#### Tri-level or eye-level

Genuine red cedar shingles and shakes make the quality difference that sells homes

Pick an architectural style you would like to build. Whatever you choose—traditional, contemporary or something in between cedar shingles and shakes will provide you a host of exclusive construction economies ... then help you sell the house faster.

That's because red cedar is the real article.

TAKE THE ROOF. It is the most important single unit in any house. It's got to be good. If you build with cedar shingles over economical spaced sheathing it will be good! It will have natural charm and beauty as well as superior function. That's why a cedar shingle roof is the accepted roof. And why many builders have discovered that cedar on the roof is like having another salesman on the ground!

walls, Too, benefit from the inherent quality of cedar. Beautifully striated, dimensionally square cedar shakes are being used on the most elaborate homes in our land... yet they remain the lowest priced genuine sidewall material on the market! Double-coursed over economy-grade shingles, cedar shakes create the thick layers and heavy bands of shadow that buyers favor. And, like a shingle roof, sidewalls of cedar are naturally insulated.

YES. Whether you're building split-levels or ramblers, colonials or contemporaries, cedar shingles and shakes will help create the architectural beauty—the genuineness—that sells houses. Plan to feature shingles and shakes on your next job. You'll agree

YOUR BEST "OUTSIDE SALESMAN" IS CEDAR.





#### MARLITE WALLS

help you get the right price for your new homes

Give dry wall construction that "look of luxury" with new Marlite Plank and Block. Builders have discovered this easily installed plastic-finished paneling means faster completions with more sales appeal. And home buyers appreciate Marlite's beauty, easy maintenance, and elimination of periodic redecorating.

Prefinished in 10 "Companion Colors" styled by Raymond Loewy Associates in a semi-lustre finish, plus 4 distinctive wood patterns, Marlite is "at home" in every room from basement to attic. It goes up fast with a special tongue and groove joint which eliminates joint coverings. And all fastenings are concealed in the finished job.

For complete information, see your building materials dealer, refer to Sweet's File, or write Marsh Wall Products, Inc., Dept 803 Dover, Ohio. Subsidiary of Masonite Corporation.

#### that's the beauty of Marlite

PLASTIC-FINISHED WALL AND CEILING PANELING
Marlite is made with Genuine Masonite® Tempered Duolux®



## Lowest Prices

host Powered

LOWEST PRICES! Many standard models of Dodge trucks are priced lower than all other makes! Yet with these low prices, quality-built Dodge trucks are dependable as ever.

HIGHEST POWER! Power-Dome V-8 engines, with 169 to 202 hp., are the most powerful of any leading trucks. Save time, save on operating costs, with these short-stroke V-8's! You'll save with Dodge thrifty 6's, too!

THE FORWARD LOOK! Now Dodge brings the Forward Look to trucks. New wrap-around windshield (biggest of any make!) means added visibility and safety! More reason why you should look at Dodge before you buy any truck. Why not phone your dependable Dodge truck dealer, today?

DGE "Job-Rated" TRUCKS > WITH THE FORWARD LOOK!



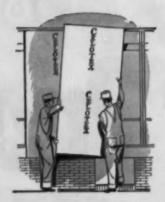
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#### These famous Celotex products

Double-Waterproofed
CELOTEX

INSULATING SHEATHING

Goes up 30% faster, up to 15% less waste. Insulates, weatherproofs, laminated for extra strength. Double-waterproofed . . . no wet-weather work delays. And there's a powerful sales inducement in showing prospects the Life-of-the-Building Guarantee Certificate!



Triple-Sealed
CELOTEX
ASPHALT SHINGLES

In prospect-preferred lighter, brighter pastel blends. Triple-sealed by special manufacturing process for increased weather protection, extra-long service. Color-harmonized to fit any decorative plan. Complete range of weights and types — plain or grained.



#### and our National Advertising in The Saturday

Here are four examples from the world-famous family of Celotex Building Products. These are representative of the materials that help clinch the sale . . . products tested, proved, endorsed by architects, builders, and contractors everywhere.

You are *sure* of top quality when you use building materials trade-marked "Celotex"—products backed by consistent and powerful national advertising and merchandising . . . year after year.

For over a third of a century, the brand name Celotex has been advertised consistently in leading national publications. It is one of the best known names in the building industry. These \*200, U. S. POI. Off. ads always feature the advantages of Celotex Products in home construction. And they continue to point to you, the builder, as the man to see for a home of the lowest cost consistent with quality construction.

It will pay off in quicker sales and customer satisfaction to let your prospects know that you use genuine Celotex Products!

------

**THROUGHOUT 1955**, colorful, attention-getting ads like these in THE SATURDAY EVENING POST do a hard pre-selling job for you. Make these powerful ads work for you by letting prospects know that your homes are built with Celotex Products I

Build Better...Build with Genuine



**BUILDING PRODUCTS** 

THE CELOTEX CORPORATION, 120 SOUTH LA SALLE STREET, CHICAGO 3, ILLINOIS

## guarantee you Quality

#### CELOTEX ROCK WOOL INSULATION

Permanent, fireproof, odorless ... keeps homes cooler in summer, warmer in winter. Wallthick rock wool stops heat better than a six-foot thick brick wall. Available in Rock Wool Blankets, Reflective Rock Wool Blankets, Hand Pouring Type Home Insulation, and Loose Rock Wool (for hand packing).



#### CELO-ROK GYPSUM WALL BOARD

Famous "Celo-Rok"\* Gypsum Product for economical wall and ceiling construction. Noncombustible core encased in smooth, durable covering. Builds strong, durable interiors at big materials and labor savings. In Regular, Fi-Rok\* (fire resistant), Foil-Backed and Wood-Grained Surface.



#### **Evening Post stimulates home ownership!**



#### Can carpeting solve a selling problem

When builders offered "luxury touch" free, tough sales became easy

Builders who have offered carpeting as a housewarming gift exclaim at its extra push in clinching sales. Because wall-to-wall is an organic part of the house and permanently enhances its value, it has more housewife appeal than such gimmick deals as a refrigerator full of groceries or a free down payment on a car included in a mortgage.

#### McKeesport-\$12,400

"Homes sell more with carpet on the floor," to adapt the Carpet Institute slogan. But is the deal only for expensive jobs, where the big margin easily absorbs the cost? Clearly not. Frank M. Corace, who has been putting up Baldwin Homes around Pittsburgh for seventeen years, now averages 250 moderate priced units a year. His last group, near McKeesport, Pa., cost \$12,400, and featured Mohawk's Dixiana cotton in every room. All 68 sold fast.

#### San Diego-\$13,500

Arthur L. Lynds, of Johnson, Tyson, & Lynds, builders of over 3,500 homes in the San Diego area, reports a price of \$13,275-13,575 for 174 three-bedroom, two-bath on slab units, with Bigelow-Sanford covering in living and dining rooms. A later group of 90 in the \$18,000-25,000 bracket carpets all rooms.

#### Valley Forge-\$15,490

Cinnamon Hill, a split level group near Valley Forge, Pa., moved 49 units quickly at \$15,490, in a section where few houses had been built at over \$12,000. Dolph W. Zink of the promoting firm, Eastern Mortgage Service Co. of Philadelphia, and the Martin Bergman Co., builders, give major credit to the bonus of Lees' Springloop in living-dining room.

#### Long Island-\$33-42,000

On Long Island, builder Bob Rose reports good acceptance for his \$33,000 Kings Point houses, which offer a choice of good parquet flooring or a Barwick or Masland cotton, with rubber underlay right on the slab. The thirty units of the Sands Point Estates, at \$36,900 to \$42,000, by builders Martin Winter, Ben Chorash, and Mike Shapiro, include a complete coverage of Lomaloom, a rayon and nylon velvet with built-in rubberized base, laid on slab.

The field is wide open for imaginative deals with customers. Corace offers a choice of hardwood California pine under his carpet, or a better grade hardwood without covering. Bob Rose's customers may have a good parquet instead of the carpet, or, for \$300 extra, an all

#### It took carpet to sell better slabs



HOBART HOMES at Clairemont, near San Diego, achieve low, sweeping lines by use of slab foundations, and overcome local prejudice against slabs by including carpet, says Arthur Lynds, builder. Cost is absorbed to win FHA approval, sell houses faster, and give better value.

#### for you too?

nylon installation. At Cinnamon Hill, only one buyer in 49 preferred a \$200 allowance for furnishings.

Federal agencies do not yet recognize soft surface floor covering for original mortgages or open end loans. (Builder Corace believes that some vigorous lobbying by carpet people could change that.) But private lending agencies are leaning toward package mortgages which include carpeting as well as other home improvements. A curious effect of FHA and VA is that moderately priced on-slab homes, looking toward federal support, specify wood or asphalt under the fabric, while the higher brackets dispense with both FHA and the extra layer.

Sometimes carpet is the only solution for a local problem, as it was for Lynds. "There was so much war housing in San Diego with slab floors that it became associated with cheap housing. So to make a slab acceptable in our quality homes we find it necessary to carpet the floors—and it works."

#### in San Diego



TWO BATHS, three bedrooms at \$13,275 to \$13,575 sold 174 houses in four models and several plan variations. Carpeting helped spark many sales.



"THE LUXURY of wall-to-wall carpeting which every woman hopes to someday have" appears in Hobart Homes' living, dining and hall areas. Buyers get choice of six colors in Bigelow-Sanford loop or cut pile, with pad. Asphalt tile is laid over slab for FHA approval.

CONTINUED ON NEXT PAGE >

#### 'Priced too high,' they said, but carpet sold it ...



Cinnamon Hill builders were warned by real estate men that \$15,490 price was risky. "Frankly, we were a little worried about the reaction to our price when we opened our first model home," Zink admitted, "That's why we decided to offer free carpet in the first section." Two ads in a Phillie paper worked.

#### CARPETING, PROMINENTLY DISPLAYED, "HELPED TRADE UP THE MARKET"

"You have to give the home buyer something extra to clinch a sale these days. The carpet gift must be considered as purely a promotional expenditure and it worked.

"A number of people who came out to see the homes had not noticed the announcement of the housewarming gift in the ads. From the way their faces lit up when we told them about the free carpet, you could see that it was a big factor in closing the sale.

"The promotion certainly helped us trade up the market here."—Zink

15,000 came, saw

4 BALDWIN HC MES SPECIAL INSERT
STRESSES CARPETING IN EVERY ROOM

"In ten short days over 15,000 people came and went through the model. The result: the houses were sold before they were built.

"For those builders who don't require basements, I can't see why they don't use carpets over plywood.

"Why can't the carpet industry try to persuade the Federal Housing Administration on carpet as a building material, to be included as part of the mortgage. Meanwhile they most certainly should try to interest other builders like myself in using carpet as I do."—Corace



PIONEER IN PRICE CLASS in Valley Forge region, this \$15,490 split level got a lift from carpet. Once interest in Cinnamon Hill was aroused, a second group of 32 houses sold without carpet at same price.

#### and were pleased



DR. 9'-4" DB. BR. 12'-0"x 13'-3"

L.R. 14'-6"x 14'-8" 9'-1"x 11'-6" 10'-11"x 11'-6"

FIRST FLOOR

REC. 12'-1"x 18'-0" 10'-6"x 20'-1"

♦ HOME OWNER Mrs. Gerald Nylander tells June Thompson of Corace firm and carpet representative Charles Lenz that carpeting played a big part in decision to buy the house. "Yes, you can say we're well pleased."

#### You could write three feature

#### ATLANTA BUILDER'S FAMILY SETS NEW LIVING PATTERN

Son and grandson of builders, Herbert L. Bryan had clear ideas of what he wanted for his own home. One idea was a modern version of the old-time kitchen where the family gathered for reading, homework and conversation (before the days of television).

So for his new home at Dunwoody, Ga., near Atlanta, he had architect William Hay include a modern-style family room, but as an extension of the kitchen. The idea caught hold. Result: the Bryan family spends practically all non-sleeping time in the family-kitchen—eating, working, TV'ing. The formal dining room off the kitchen is used maybe a half-dozen times a year. Most meals go on the snack bar up against the range, or the small table. Desk, sofa, bookshelves, easy chair, and fire-place tell how the rest of the time is spent—all within easy reach of refrigerator and freezer for the Bryans' pre-teen daughter, Janet.

The fittingly Georgian brick house has Douglas fir framing, custom Curtis windows, and Westinghouse kitchen appliances.

#### 2 NEW LOOK SETS FAST PACE FOR AN ENTIRE SUBDIVISION

Knowing a good thing when he had it, Builder Bryan has planned 75% of his recent houses around the family-kitchen, which "has played a major part in selling the houses." Atlanta newspapers hailed the family-kitchen feature as a laudable and progressive step in unifying the institution of the family, and a healthy return, in modern fashion, to an old and good way of life. Eighteen of the houses of similar style have sold at \$22,000 to \$30,000, with large plots.

#### . . about this family-kitchen



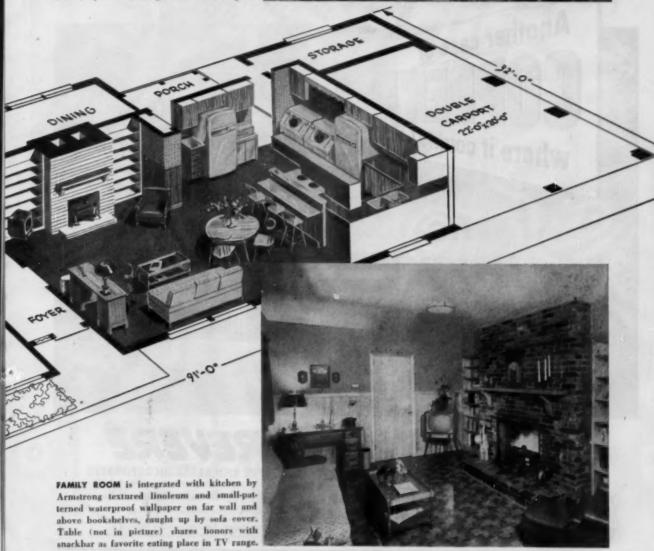
#### stories...

#### 3 ZONING CUTS COST OF AIR CONDITIONING

The whole house is air conditioned centrally with a Bryant Clima-Twin 3-ton unit in the partial basement, sharing the ducts and perimeter outlets of the gas-heated forced air system. Concentration of cooling in the double room keeps costs under \$1 a day during the hot months.

KITCHEN has main work area between sink and range with counter over snack-bar. Exhaust fan (behind rooster design) vents through duct above; dryer vents through window over carport.





#### WILLIAM E. NEUMANN HOUSE

Du Page County, III.

Architects: GEORGE FRED KECK-WILLIAM KECK Gen. Cent.: TELANDER BROS. CONTRACTORS, INC. Shoot Motol Cont.: SUNDSERG ENGINEERING COMPANY Rovere Dist.: CENTRAL STEEL & WIRE COMPANY All of Chicago, Ill.

RADITIONAL, functional, modern ... name your type of architecture and you'll find copper in there protecting the vital spots, as it has been for centuries. On the Neumann Residence shown 750 lbs. of Revere Sheet Copper were used for gravel stops and for

flashing louvers and windows.

In spite of the introduction of other materials through the years there are many reasons why copper continues to be used by architects and builders. First off, the enduring qualities of copper have been proved for centuries. It cannot rust, rot or deteriorate . . . salty atmosphere will not pit it. So you know in advance that copper will last. Second, copper is easy to work, form and solder, is readily prefabricated. This flexibility makes it practical and economical to use in every conceivable shape and form to fit any design.

Third, copper ages gracefully, takes on an attractive and protective green patina. Fourth, because of its many qualities copper has been accepted by the public as the badge of a quality house. You do not have to justify its use. And that goes for a prospect for a \$12,000 home or a board member on a \$1,000,000 municipal project. Loan sources, too, are partial to the many attributes of copper in building construction.

So if you would guard your reputation for quality construction, it would seem wise to trust to copper. And for your added protection and convenience, Revere Strip, Sheet and Roll Copper are

now marked with gauge and temper in a water-soluble ink.

Ask the Revere Distributor to show you. If there are any technical difficulties confronting you regarding the proper installation

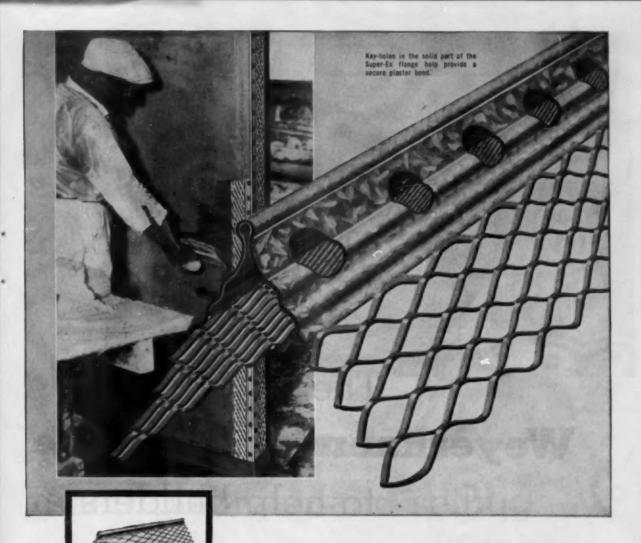


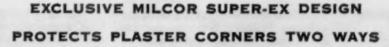
#### REVERE

COPPER AND BRASS INCORPORATED

Founded by Paul Revers in 1801 230 Park Avenue, New York 17, N.Y.

Mills: Baltimore, Md.; Brosklyn, N. Y.; Chicage, Climton and Julin, Ill.; Detrait, Mith.; Las Angeles and Riverside, Calif.; New Bodford, Mass.; Newport, Ark.; Rome, N.Y. Sales Offices in Principal Cities, Distributors: Everywhere.





You get a better job — and uphold your reputation for quality — when you reinforce corners with Milcor Super-Ex Corner Bead.

Expansion Corner Bead

Expansion Buil Nose Milcor Super-Ex combines (1) the rigidity of a solid wing with (2) the added plaster reinforcement of expanded metal. You get greater depth of plaster adjacent to the bead — to protect corners against cracking and chipping, and to assure lasting true-edge beauty.

Super-Ex Corner Bead helps to re-

duce erection costs. It requires little or no aligning. It can be wired, nailed, or stapled — without using clips.

The wings of Super-Ex are formed at an angle of approximately 65° for a spring-fit on a 90° corner. They adjust readily to any standard, specified plaster grounds, whether ¾", ¾" or ½".

For planning help, consult Sweet's Builders' File. Catalog No. 202, available upon request, describes the complete Milcor line of versatile corner beads and other metal lath products,

#### MILCOR CORNER BEAD

INLAND STEEL PRODUCTS COMPANY

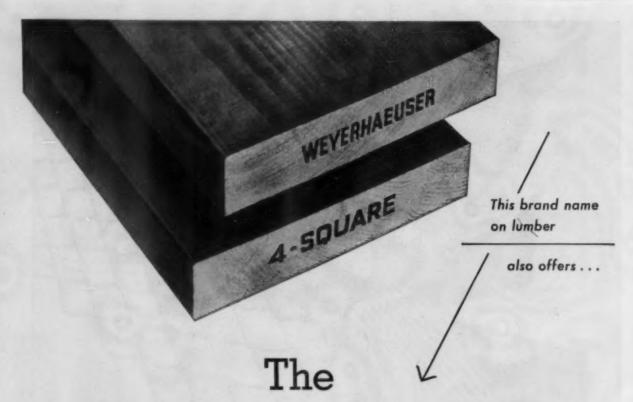
4025 WEST BURNHAM STREET . MILWAUKEE 1, WISCONSIN

BALTIMORE 5, MD. . BUFFALO 11, N. Y. . CHICAGO 9, ILL. . CINCINNATI 25, OHIO . CLEVELAND 14, OHIO DETROJT 2, MICH. . KANSAS CITY 41, MO. . LOS ANGELES 56, CALIF. . NEW YORK 17, N. Y. . ST. LOUIS 10, MO.

M-154

AUGUST 1955

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### Weyerhaeuser 4-Square to help builders in

More and more builders are using the 4-Square Building Services—because of the wide choice of expertly-planned designs which promote construction economies and owner acceptance.

The Weyerhaeuser 4-Square Home Building Service, with its scores of smart modern designs, enables builders to deliver to owners greater home values.

The 4-Square Farm Building Service contains 278 engineered designs, including a broad selection of modern farm homes, barns, hog and poultry houses, machinery sheds, granaries, and milking parlors.

Builders experience welcome sales assistance as a result of our many years of advertising to the public. Colorful pages in the Saturday Evening Post and dominant advertising in American Home, Better Homes and Gardens, and in leading farm magazines are producing prospects for builders who offer designs from the 4-Square Building Services.

More and more builders are using these Services as a means of delivering greater building values while increasing their own profits. For full details, see your local Weyerhaeuser 4-Square Lumber Dealer.

#### Weyerhaeuser Sales Company

SAINT PAUL 1. MINNESOTA



#### **Building Services**

their planning and selling



## They're New... They're Steel... They're [STANLEY]

#### Steel Swing-Up Garage Doors By STANLEY

They're NEW! All new doors with heavy 24-gauge steel faces and heavier 18-gauge vertical side and center reinforcing channels. Steel surfaces zinc-coated, Bonderized and prime-painted, ready for finish coat of paint.

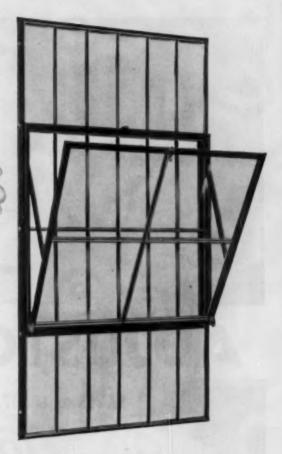
They're STEEL! Rugged, longer lasting steel that outwears anything. With quality Stanley hardware — including floating action bearings, heat-treated, oil tempered coil springs, all around weatherstrip and complete with cylinder lock and handle.

They're STANLEY! These doors lift easily and automatically up and in — entirely out of the opening... no overhang to worry about ... minimum headroom for track installation. Good looking, long wearing, with the finest materials and construction throughout. The Stanley trademark on every door is your assurance of superior quality. Write the Garage Hardware Division, The Stanley Works, 108 Lake St., New Britain, Conn., for full details as to sizes, styles and other installation data.



#### How to outwit a prowler





The sight of the built-in steel grille in this Fenestra\* Security Window will discourage even the most determined prowler! And a confederate inside can't help much, either, for the window is designed so that it's mighty difficult to hand material through.

These prowler-proof windows also give you ideal ventilation. The bottomhung, open-in vents deflect drafts upward, shed rain to the outside. Windows with obscure glass can be kept open without exposing the interior to outside view—ideal for rest rooms. And the vents do not open out over sidewalks, endangering pedestrians, or protrude into alleys or driveways, where vehicles can damage them.

Fenestra Security Windows are good looking, too! No separate bars outside the window. The window and grille are one unit. You can install the complete unit in one easy operation. They're ideal for stores, warehouses, garages, small plants and many other buildings, in first-floor walls, unprotected side and rear elevations, and near fire escapes or roofs of adjoining buildings. For more information, call your Fenestra representative, who is listed in the Yellow Pages. Or write the Detroit Steel Products Co., Dept. AB-8, 2260 East Grand Blvd., Detroit 11, Michigan.



GALVAMIZED-RONDERIZED-STEEL - THE STRONGEST MATERIAL CORROSION-PROOFED FOR LIFE

ARCHITECTURAL, RESIDENTIAL AND INDUSTRIAL WINDOWS . METAL BUILDING PANELS
ELECTRIFLOOR . ROOF DECK . HOLLOW METAL SWING AND SLIDE DOORS





#### **ADJUSTO**



#### SAVES up to \$17.50 per house in Project after Project ...

TUE FILLING

SITTING

SHOWER

The ADJUSTO combines a shower and tub filler that adjusts to any height for standing or sitting shower, shampooing or children's shower. ADJUSTO mixes hot and cold water for full stream or fine needle spray. Now the "lady of the house" can shower without a bathing cap—yet keep her hair sparkling fresh and dry.

ADJUSTO costs less than a tub filler and separate shower and cuts installation time 43% because the single ADJUSTO units does the work of both and it's so quickly and easily installed after plastering, tiling or painting.

#### Milwaukee Faucets has a Fixture for every job.

Now, Milwaukee Faucets, Inc. also offers the ultimate in styling and design—a complete line of modern over-rim tub fillers and deck faucets for the kitchen and bathroom. Before you specify plumbing for your next contemporary home—ask your progressive master plumber about the COMPLETE line of Milwaukee Faucets fixtures.

#### Now you can guarantee a dry basement with MILWAUKEE Cellar Drainers.

SHAMPOOING

SEE YOUR MASTER PLUMBER

K-7002-2 — New upright pump with a large copacity offers top performance, long life — without repairs.

K-7004-2 — Submersible pump operates under water — entire unit installs below the floor for whisper quiet operation.

CHILDREN'S SHOWER



Gentlemen — Please send me your new K-55 Catalog showing the ADJUSTO Shower and complete line of faucets, fixtures and cellar drainers.

STREET .....

STATE .....

The new K-55 Catalog contains all the latest information on styles of quality plumbing fixtures.

Dept. C, 333



K-7002-2

MILWAUKEE Jan

Dept. C, 33 3 E. Reservoir Ave. C



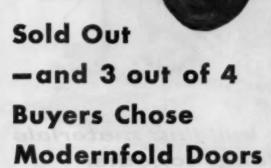
FAUCETS, INC.
Dept. C. 333. E. Reservoir Ave.

Milwauken 12, Wis.



The exterior (above) and the kitchen (right) of one of the 3 befroom homes in the 47 home Greenmeadow development, Brandywine Hundred, Wilmington, Deleware.

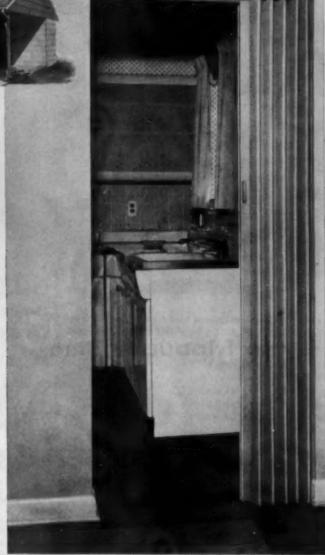
Irv Medgebow, of Franklin Builders Homes, Inc., Wilmington, Delaware, reports the Greenmeadow Development is



"When we gave the buyers in our Greenmeadow development the choice of conventional sliding doors or Modernfold's new Spacemaster door, three out of four chose Modernfold! They like Modernfold's easy accessibility, the extra wall space it gives them, and its durability. We, as builders, selected Modernfold because of its easy installation and structural superiority. One reason Greenmeadow sold out so fast has been the use of Modernfold."

Most home buyers are intrigued with a door that folds completely within the door frame. Modernfold does things no other door can do, and ends wasteful door swing, as well as the problems of poor tracking, warping and refinishing. Your own salesmen can demonstrate the smooth, accordion-like action of Modernfold doors, and show prospects how much "living room" they gain with Modernfold, used either in a doorway or as a room divider.

The construction of a Modernfold door exceeds the highest standards of the folding door industry. The balanced, double-strength steel framework is mounted on overhead tracks and built to last the lifetime of the house. The ruggedly handsome vinyl covering wipes clean with just soap and water.



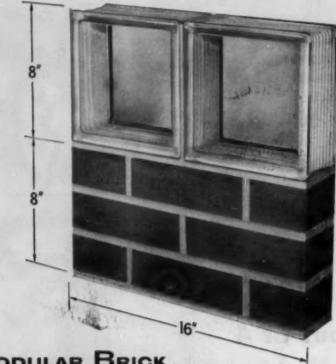
With Modernfold doors, it's easy and inexpensive to give homes powerful sales appeal by adding to their spaciousness, beauty and usefulness.

The Modernfold Custom line—for closures of any size—is available through Modernfold distributors. Look under "Doors" in city classified directories. The "Spacemaster" line—for standard small closures—is available at your building supply dealer. Or write New Castle Products, Inc., Dept. H-21, New Castle, Indiana. In Canada: New Castle Products, Ltd., Montreal 6.



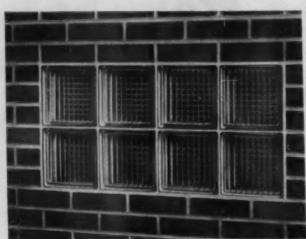
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#### OWENS-ILLINOIS GLASS BLOCK\*



#### -AND MODULAR BRICK

#### ... building materials that "belong" together



Because glass block and modular brick "fit," two 8" block are easily substituted for six standard modular brick; two 8" block can be used in place of a standard concrete block.

Owens-Illinois Glass Block are handled in the same way as modular brick. Same mortar materials and similar laying technique . . . go in at the same time. Three modular brick equal one 8" glass block.

Glass block arrive on the job site packed in sturdy cartons of convenient size. Cartons can be opened as block are needed. No loose block for you to handle. Panels can be made to fit any size opening . . . no frame is necessary.

Owens-Illinois Glass Block are available in a wide variety of designs from super-clear that you can see through to those that restrict sight completely. Literature for any glass block application is available free of charge. For information or help with a specific problem write: Kimble Glass Company, subsidiary of Owens-Illinois, Toledo 1, Ohio.

\*Formerly known as INSULUX

OWENS-ILLINOIS GLASS BLOCK
AN (1) PRODUCT

OWENS-ILLINOIS

GENERAL OFFICES . TOLEDO 1, OHIO

AMERICAN BUILDER



## AMERICA'S LEADING FIREPLACE Outsells All Others 361

The favorite of home builders and buyers for nearly 30 years, the Heatilator Fireplace now outsells all other fireplace units combined by the impressive margin of 3 to 1.

Why? Because it is specifically designed for easier and better installation in today's home. It is the only unit offering the famous Pressure-Seal Damper that cuts winter heating and summer air-conditioning costs. But most important, it is the fireplace that home buyers recognize and know they can trust.

The Heatilator Fireplace has lived up to every claim made for it, without interruption, for over a quarter of a century. It is a mark of quality in the homes you build.

- **WILL NOT SMOKE** 
  - **O CIRCULATES HEAT** 
    - . DAMPER SEALS AIRTIGHT

HEATILATOR INC., 328 E. Brighton Ave., Syracuse 5, N. Y.





Progressive builders and contractors know a good thing when they see it. That's why STRUCTOGLAS is their first choice in reinforced plastic building panels.



Produced by an exclusive molding process, STRUCTOGLAS panels feature outstanding uniformity of color, thickness, corrugation, glass fiber dispersion and strength. Rigidly controlled quality cuts installation time and costs to a new low.



It also means that controlled light, eye-catching colors and tremendous buy-appeal can be added to buildings of all types . . . with fewer headaches and greater profit . . . when you install STRUCTOGLAS translucent plastic panels.



## Structoglas division of

international molded plastics, inc. 4297 west 35th street • cleveland 9, ohio



Send coupon for bulletin SL-46 or complete details

4297 West 35th Street, Cleve	land 9, C	Ohio
Please send me, without of ( ) name of nearest distrib plastic panels.		
Name		Title
Company		
Street		
City Z	ene !	State



**SWAN POND** is "write-home-about" feature of the newest group of guest units. With an orchard, a swimming pool and a nine-hole golf course, the pond emphasizes the out-

doors theme, which is carried out by the rustic architecture of the buildings, Poved walks encourage strolling. The footbridge (foreground) is a functional walkway to the pool.

## The motel they came to see ...

The name "Rickey's" was enough to make people stop and look when the San Francisco restaurateur opened his "Studio Inn" on El Camino Real, Palo Alto, but it is the fresh rustic layout and the solid comfort of the rooms that keep bringing them back, and give builders some basic ideas on building motels in mild climate.

The close-to-outdoors theme was carried out by architects Ernest Kump and associates and contractors Barrett and Hilp. They had as a head start a 14-acre apricot orchard for landscape, and a lot of fine Douglas fir from a dismantled brewery which client John Rickey had acquired.

The exposed ridges and rafters were given an antique off-white finish—one coat of thinned lead and oil paint. The interiors achieve a "living room" look from davenport beds with formica corner tables, drapes, carpeting, and pictures.

Sidewalls are resawn vertical grain, 1x12 all heart redwood

boards with butt joints. They were first given a coat of white lead and oil paint, then a brown coat was applied with a wire brush; the brown adhered to the bandsawn ridges, white remaining in the valleys. Ceiling is a peach-pink paint.

The bathroom, with the same color relations as the main room, is

louvered for light and privacy.

Exteriors are rough board-andbatt and shake roofs. Underside of 11' overhangs is 1x6 rough board. Planters join with the trees for the outdoors look. The first 52 units in 17 wings went up in 1950; then 26 units in seven wings were begun in 1953. A total of 200 is planned.

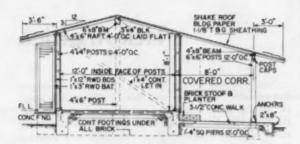


AMERICAN BUILDER



BRICK PARTITION separates adjoining units in newer wing. Relaxed treatment of wood ceiling and walls offsets more formal "living room" furnishings, carpeting and drapes.

## and to stay at



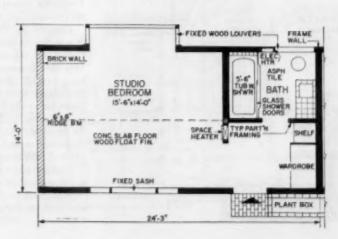


ENTRANCE at right faces sumptuous bath—of first interest to travelers—behind partition holding space heater and 4x6 post.

SECTION brings out size of bay window, alternating in some wings with casements. Note solid foundations.

PLAN indicates large opposed window space. Overhang and walk on entry side are omitted.

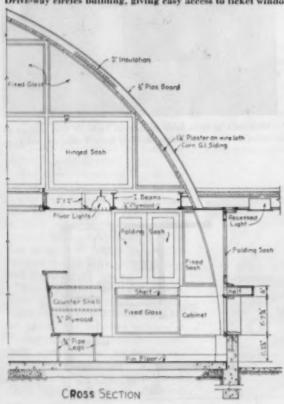
LONG GUEST WINGS have 11' overhang with 6x6 posts 12' o.c. Fruit trees and foliage everywhere spell California.



The Latest



Drive-way circles building, giving easy access to ticket windows on two sides



## Ticket office

Nearly 50 per cent of United Air Lines' passengers from the San Francisco area live in the suburbs south of the city and south of the municipal airport. United, therefore, has built a drive-in ticket office on one of the main highways between San Francisco and outlying Peninsula communities, to supply an added customer service.

Planned by United's architects, the basic structure is a series of steel arches bolted to a concrete foundation. Over the arches are fastened channel irons and over this framework is applied metal corrugated roofing. Arched portion of the building was erected in accordance with details supplied by Stran-Steel Div. of Great Lakes Steel Corp.

Insulation is placed between the ribs of the arches on

Insulation is placed between the ribs of the arches on the interior. Then expanded metal lath is attached and the entire arched portion of the interior wall-ceiling is finished with acoustical plaster.

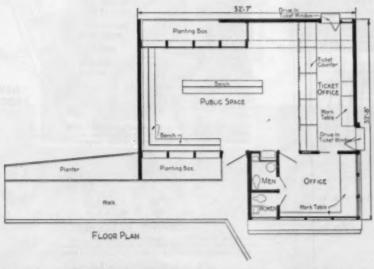
Window walls at either end of the arch are built with a framework of redwood 4x12's placed four feet on centers. Sash is of fixed glass and hinged vent sash set with a chain for a 60-degree opening for ventilation.

## in Drive-Ins:



United Air Lines' drive-in ticket office is an architectural attention-getter

## for an airline



One ticket window is to west, the other to the south, Customers drive by windows around building and back to highway

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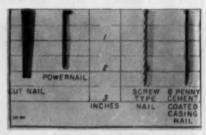
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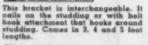
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Henry Doelger Builder, Inc. Executives, J. to r.: John Doelger, V. P. and Gen. Mgr.; Henry Doelger, Pres.; Alpha Porter, Sec.-Trees. and B. Poncetta, V. P. and Asst. Sec.



Mosaic glazed tile kitchen counter and backsplash help make housekeeping a brezze for Mrs. Goldman.



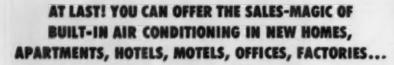


Nothing can harm the permanently colorful Mosaic ceramic tile walls and floor in the Gerald Goldman bathroom. Spilled water and cosmetics wipe away! At left, the Goldman home at S8 Pinehavon, Westlake. Below, airview of huga Westlake Development.



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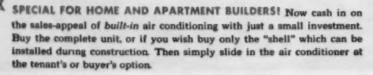
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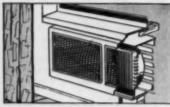
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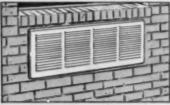
What's more, the LEWYT gives you many other big features like extraquiet operation. no duct-work, easy installation!

Why not see how the LEWYT can fit into your building plans-mail the coupon today!

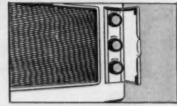




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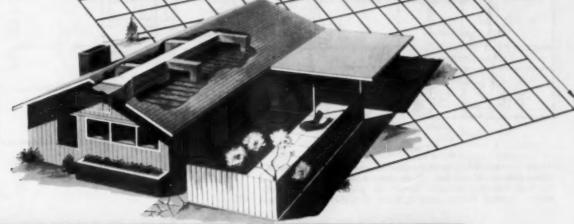
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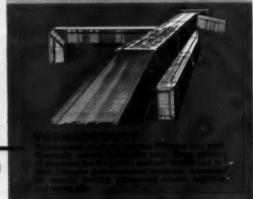
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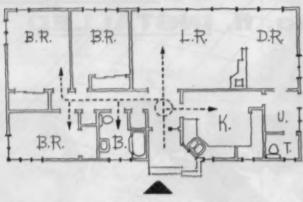
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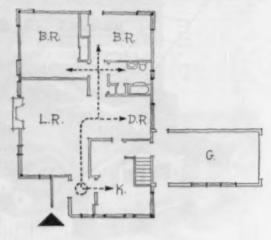
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## Good traffic circulation:

#### 1. Two one-story plans—how their circulation patterns work



Three-way entry hall in above plan serves bath and bedrooms, living room and kitchen. Note how well traffic is allowed to flow directly through house. In plan at right, traffic moves through living room without disturbing conversation



## . . it's what makes houses

In each of these plans there is at least one central hallway serving various rooms. In no plan do you enter the living room directly. An old but still good principle, it usually makes for better houses. It also makes living rooms much more livable.

In the plan of a house, whether large or small, the living room is the principal area of social contact between the members of the family and between them and visitors. As such it should be kept in order at all times, and should have these characteristics: (1) it should be located near the front entrance but should not lead directly into it: (2) it should not serve as a passage to other rooms; (3) if it must allow access directly to the bedrooms, then an alternate way should be provided to reach the kitchen and dining space.

By good traffic circulation we mean the ease with which the occu-

pants of a house and their guests can move about from one room to another without having to use one of the main rooms—usually the living room—as a traffic artery.

When houses were planned of reasonable size, then space was allowed for halls and passages and the achievement of a functional traffic pattern was not so difficult. But the living area of new houses offered for sale by builders has been constantly diminishing. Reason has been the high cost of building and the need to produce the maximum space for the money.

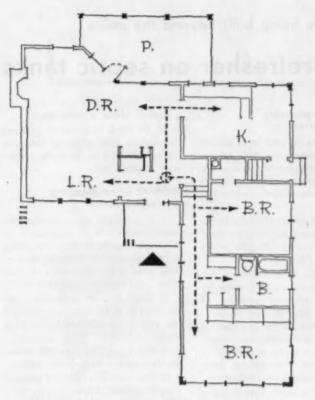
Now with the increase in the size of the nation's families, the need for

three-bedroom houses is felt everywhere. This need is too often being met by reducing the living area in order to obtain the third bedroom, without any apparent increase in the total square foot area of the house.

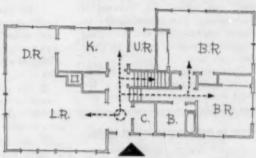
Halls and passages—the logical traffic directors—have disappeared. The living room now does the job, and this arrangement has become almost standard practice.

But this practice is wrong. The need for properly sized living areas and good circulation to and from rooms remains constant and must be observed if our houses are to offer the livability for which they are supposedly built.

It is surprising how often houses are found today having the same sized living room, whether there are one, two or three bedrooms, or whether dining in the living room is considered. Obviously, it should be possible for all members of the family to gather in the living room for social life and for dining without having to ask visitors to sit on the floor.



#### How circulation pattern works in two split-level plans

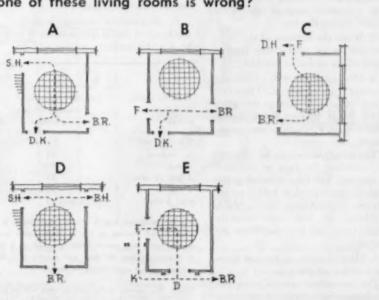


Central entry in above plan leads to a sizeable hallway, giving easy access to all rooms. Bedroom wing may be reached without crossing other rooms. In both plans the kitchen is up front and easily accessible

## much easier to sell

Planning rule: traffic should flow around, not across . . . Which one of these living rooms is wrong?

The five schematics to the right are living rooms. Cross-hatched areas represent conversation groups or other concentrations. "C" is the worst example of a cross traffic pattern, although "A" and "D" (typical apartment layouts) are also guilty. "B" is best—but only because conversation grouping is close to window. "E" is a compromise



## It's time for a refresher on septic tanks

Failure of a septic system can be traced to an inadequate seepage system, non-porous soil, volume of daily sewage flow exceeding the designed capacity, or soil becoming clogged because of failure to clean the septic tank.

Here are pointers which will help guard against contamination of the local water supply from septic system troubles.

#### How to take percolation tests

Proper design for a subsurface seepage system for disposal of the flow from a settling (septic tank) involves making percolation tests. These tests will indicate the ability of the soil to absorb this flow.

In certain clay soil areas, the percolation tests may show that subsurface seepage systems cannot be expected to dispose of this overflow properly. Here's how to run the tests:

 Dig a number of post holes in the area laid out for the seepage field, each hole to a depth equal to that at which it is proposed to lay the seepage tile.

2. Fill the holes with water and allow it to seep away. It is important to thoroughly moisten the holes so that a constant seepage rate is obtained during the test.

3. While the bottoms of the holes are still moist, add water until a depth of six inches is reached.

4. Determine the rate of seepage of water from each hole. If this rate is not constant throughout the entire 6-inch range, the test should be repeated until a constant rate is obtained.

The seepage rate can be obtained by recording the time at the start of the test, and then measuring the drop in water level at half-hour intervals. If the drop during each half-hour is not approximately equal, then that test should be repeated.

5. Then compute an average scepage rate for all the tests.

The necessary area required in the bottom of seepage trenches is given in the table to the right.

## DO's when planning a septic system

1. Do consult your local county health department for their recommendations on a septic system for a particular piece of vacant property (without sewage system) before you buy it.

Do get permission from the owner of vacant property to allow you to make percolation tests before you acquire the property.

3. Do check with owners of any existing adjacent septic systems for information on the operation of their sewage disposal systems.

4. Do consult a local engineering firm for recommendations and specifications for a septic system for a particular plot if conditions arise that are not solved satisfactorily.

5. Do plan a septic system for a given house larger than the minimum sewage requirements, so that any increase in sewage volume will not render the system inadequate.

6. Do plant grass and short rooted shrubs over and near the seepage bed to help evaporate moisture faster than normally.

7. Do leave some written data on the maintenance of the septic system for the new homeowner.

8. Do consider seepage beds in the front of the property when it is known that sanitary sewers will be installed within a given time.

 Do think in terms of building houses on four adjacent lots and using a fifth lot for the septic system and seepage beds.

## DON'TS when planning a septic system

1. Don't make any commitments, recommendations or suggestions to a prospective homeowner regarding a particular contemplated septic system until you have checked with your local health authorities.

Don't alter the percolation test findings to make them acceptable if the soil is not suitable for seepage beds.

3. Don't put field drain tile under footings or near foundation walls.

4. Don't put driveways or garages over the seepage beds.

5. Don't plant any long-rooted trees near the scepage beds; the roots eventually will find their way into the joints between the tiles and clog them.

 Don't discharge the out-flow from the septic tank into any storm drain, open ditch, creek, stream, ground surface or abandoned well.

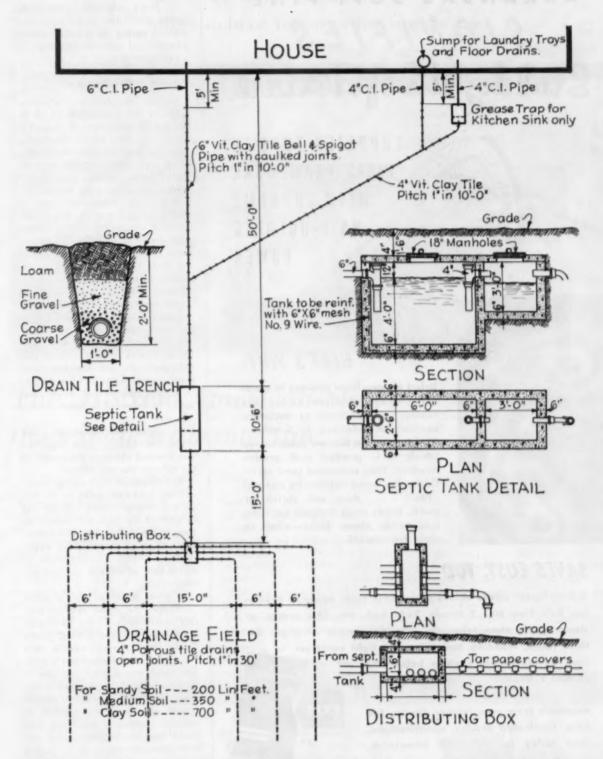
7. Don't insist on putting in a septic system where there is practically no seepage; sewage will eventually back up.

(Continued on page 156)

	Required area in bottom of seepage trench system			
Time for water to fall six inches	Average rate of seepage (Minutes per inch)	Per Bedroom	Minimum for Single family residence (sq. feet)*	Per Gallen of Daily Sewage Flow
1 hr. 30 min.				
(or less)	15	160	400	1.2
3 hrs.	30	260	650	2.0
4 hrs. 30 min.	45	350	875	2.7
6 hrs.	60	440	1100	3.4
over 6 hrs.	ever 60	Unsuitable for seepage system.		

off the residence has 3 or more bedrooms, it will be necessary to calculate the required area in the bottom of the seepage trench system, using the figures in Column 3 of the above table. The above table is based on a daily sewage flow of 65 gallons per person; if it appears that the flow will exceed this, then a proportionate increase in the required seepage trench area should be made.

NOTE: The values in the above table are to serve as a guide. Time of the year and other conditions may indicate need for areas in excess of the minimums shown here.



CORRECT METHOD FOR INSTALLING SEPTIC TANK and field for an average 3-bedroom house. The tank itself would handle a 4-bedroom house. Where a grease trap is provided under kitchen sink, the trap indicated in upper right of schematic would be omitted. The function of the septic tank is to provide for adequate sludge storage eapacity that will permit only a minimum of solids to be discharged to the soil in the seepage trenches. More efficient settling in the tank lessens the possibility of soil becoming clogged. Digestive action should not be depended upon to dispense with the need to remove sludge from the septic tank

# SIGNIFIES Stabilized Soft Texture

SUPPLIES TOPS IN RIGID FRAMEWORK WITH SUPREME NAIL-HOLDING POWER



SPIB No. 2-1100 F WHY:

Dried by precision process in modern cross circulation kilns, this lumber is stabilized at moisture content, mandatory in Southern Pine Inspection Bureau rules under which it is graded and grademarked. Thus seasoned (and certified), the wood retains its natural "life" . . . does not shrink or swell, takes nails without splitting and holds them tight—vital to rigid framework.

### SAVES COST, TOO

Safety factor stress values under SPIB rules apply to Arkansas Soft Pine No. 2 Grade 2x4, 2x6, etc. This grade, of closer grain than formerly, provides ample strength for floor joists, studding and rafters in light construction, at substantial savings below the cost of No. 1 Grade.

Available from your lumber dealer. For data, illustrated grades, specifications, send today for this FREE Handbook.

ARKANSAS SOFT PINE BUREAU

8. Don't subcontract the septic system installation on a flat fee basis without having the installer present a layout and water seepage tests for a particular plat.

#### **Proper maintenance**

Proper maintenance procedure calls for the septic tank to be inspected at least once a year. The frequency with which the sludge must be removed from the bottom of the septic tank depends upon the size of the tank and the daily flow of sewage into it from the house.

Where a household garbage grinder is used, a safe rule to follow for tank cleaning is that when the total depth of scum and solids exceeds one-third the liquid depth of the tank, the solids should be removed. In most rural areas, sludge removal services are offered by septic system installers. When repairing cracks and structural defects, all repairs must be made watertight.

Experiments by the United States Public Health Service indicate that detergents do not interfere with septic system digestion when applied in concentrations that would normally be expected in home sewage disposal.

In higher concentrations, some slight interference with digestion was detected although the quality of the effluent was not affected.

The effects of discharging watersoftener backwash waste to the septic tank seepage system indicate that in spite of the high salt concentrations in the sludge, digestion continues well at all times. These wastes contain a high concentration of mixed salts of sodium, calcium and magnesium.

A great many of the so-called "cleaners" for septic systems contain caustic soda. Under laboratory observation by the United States Public Health Service caustic soda was added to a full-sized septic tank. The result was a great increase in the alkalinity of the septic tank outflow. Digestion of solids virtually ceased and the sludge swelled in volume, creating a condition that could tend to discharge solid material into the seepage bed. Such a discharge would be damaging to the soil absorption system. It is commonly known that sodium hydroxide, a common caustic, has the property of destroying soil texture, making the soil more impervious.

### saves cost for the builder offers deluxe features for the owner



## The All-New American-Standard Kitchen does both with one line

The all-new American-Standard kitchen offers the builder an economical packaged kitchen that can be customized by the home owner simply by adding accessories at any time.

The American-Standard kitchen saves money for the builder through faster, easier installation, as described below. And, although it is popular-priced, it has all the construction features that make a kitchen really deluxe: sound-deadened doors... base cabinet drawers and wire

shelves that slide smoothly on nylon
... wire shelves in wall cabinets, adjustable at one-inch intervals ...
sub-bases that permit variable height
installation of cabinets. And it's made
of sturdy steel for lasting appeal!

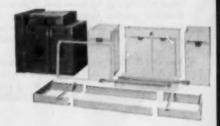
American-Standard kitchens are convertible . . . let you offer competitively priced kitchens that home owners can tailor to suit their particular needs with easy-to-add shelves, drawers and accessories. There is a wide range of cabinet sizes and styles

-including cabinets for built-in ovens and range surface units-which afford wide latitude in planning.

It's a handsomely designed kitchen . . . with horizontal cabinet styling that makes the kitchen look more spacious . . . counter tops, sinks and handle color-guards that offer just the right amount of color for distinctive kitchen decorating. See this new beauty soon . . . and you'll see the way to add new glamour, new sales-appeal to the homes you build.

### Installation is quicker, easier, cheaper too!

For example, any undersink cabinet can be assembled in minutes—by one man—from a few easy-to-handle component parts. This miracle of construction is made possible by a revolutionary assembly principle called SNAP-LOCK. An interlocking assembly channel aligns all the cabinets, clamps them together, and also fastens base cabinets securely to the separate, telescoping sub-base. Only a pair of pliers is needed for assembly!



## American-Standard products provide extra comfort, convenience, beauty for easier home sales





American-Standard has earned a reputation for leadership by always providing the newest and finest in product design and construction. Thus, when you install American-Standard products you are making your homes extra modern, extra saleable... and taking advantage of the strong American-Standard brand reputation with prospects everywhere. They have confidence in the house that's equipped with these quality products.

Shown on these pages are a few of the smartly styled, quality constructed products currently winning the praise of your prospective customers. These handsome products are designed for outstanding comfort and convenience in use . . . will add an extra measure of sales appeal to the homes you build, and assure years of dependable service. For complete information just write to the Plumbing and Heating Division, American Radiator & Standard Sanitary Corporation, P. O. Box 1226, Pittsburgh 30, Pennsylvania.

Modern Heating. Home-buyers show a fast-growing preference for the clean, even, draft-free heat that only hot water heating provides. Take advantage of this popular trend by installing hot water heat in its new, modern form—a dependable American-Standard cast-iron boiler combined with space-saving Heatrim baseboard panels. Since the heating panels replace wood baseboards and bulky radiators, they permit complete freedom for decorating and arranging furniture.

New G-4 Boiler. This gas-fired boiler is neat and compact... stands only 47½" high. The drafthood, manifold and controls are completely enclosed in an attractive Forge Red jacket... will actually add to the appearance of your homes and small commercial buildings. The cast-iron G-4 Boiler is designed for quick, easy assembly.





New Monogram Fittings. These luxurious fittings, finished in rich satin chrome, can be distinctively personalized with the owner's initials. They are available with clear, crystal-like handles or in five attractive colors to harmonize with handsome American-Standard bathroom fixtures. Handles can be bought separately so homeowners can change the color scheme of their bathrooms if they so desire.







New Dental Lavatory. This useful and sanitary addition to the modern bath helps relieve bathroom "rush-hour" traffic... helps teach children hetter teeth-cleaning habits. Made of vitreous china with flushing rim and back-flow preventer, the Dentaledge is available in all American-Standard colors. Only 14" x 14" in size.



AMERICAN-Standard

## Demand the Best

## by Name CONTRACTORS!



Potented Dur-O-wal. Sets the Pace for Reinforcing Quality and Performance

Masonry industry leaders throughout the notion hail butt-weld Dur-O-waL for performance, quality and economy.

Masons prefer Dur-O-wal because it lays flat . . . works
fast . . . handles easily.

The masonry industry pre-fers Dur-O-wal because it safe-guards the beauty of masonry by providing both vertical and horizontal reinforcing in all types of masonry walls.

why Dur-O-wal is STRONGER, FASTER AT LESS COST

· Mechanical Bond every 8 inches of wall . High Tensile Steel (100,000 p. s. i.), shipped in convenient 10 foot lengths . Double Morter Lock at each weld . Electric **Butt Welds** place all rods on a single plane . Knurled Side Rods lay straight and flat due to hardness of steel e Trussed Design causes side rods to work together.

Butt-Wold . Trussed Design

### the Backbone of Steel for EVERY masonry wall

GET ALL THE FACTS TODAY from the Dur-O-wal plant nearest you. Literature new available with new research data from independent teels. Request information today.



SYRACUSE I, N.Y. Dur-O-wal Products, Inc., Box 628

FOLEDO 8, OHIO Dur-O-wal, Inc., 145 Utah Street

BIRMINGHAM 7, ALA. Dur.O.wal Products of Ala. Inc., Box 5446

PHOENIX, ARIZ. .. Dur-O-wel Div., Frontier Mig. Co., Box 47

CEDAR RAPIDS, 1A. Dur-O-wal Div., Dept. 658, Cedar Rapids Block Co.



Money...

is a Profitable Investment

features that pay-off!

- Balanced and Portable
- One Man Operation
- Moves Materials Faster, More Efficiently
   Moves Brick, Tile, Mortar, Concrete Blocks, Boxes, Sacks, Corrugated Sheets, Crates, etc.
- · Accommodates 8 ft. extensions

Write - Phone

SAM MULKEY COMPANY

P. O. Box 270, Dept. AB-8

Lee's Summit, Missouri

## ST CUTTER UNIVERSAL TRIMMER

of grain. Quick adjustments to 45 degrees or 90 degrees. Miters, bevels, squares, chamfers-hundreds of uses! A time saver on every job.

WRITE FOR FULL INFORMATION

POOTATUCK CORP.

STRATFORD CONN





## Builders, take a fresh look at your coverage

How long since you have analyzed 1) what can happen to you in your present setup and 2) what the insurance people have thought up in new ways to protect you?

An outline by A. L. Hollenbeck, secretary, Agricultural and Empire State Insurance Companies, divides builders' risks into three broad groups: those which may result in a large loss, with must coverage; those which constantly threaten, though the loss may not be large; and small loss items which occur frequently. Select from the second and third group the special possibilities that apply to you.

Another way of listing hazards is under the heads of "Buildings under Construction" and "Contractor's Operations."

#### Fight Fire with Foresight

Fire accounts for the bulk of destruction to buildings under construction. One survey shows that more than 40% of builders suffering a heavy uninsured fire loss are forced out of business within a year.

Carelessness, as usual, is the main cause of loss by fire. Shingles were stored near a welding shed at a mid-west construction site. A fire in the shed carried to the shingles: \$100,000 loss, completely avoidable by a pinch of common sense.

The basic fire policy, which also covers lightning, should cover any loss which the business could not otherwise stand. A special endorsement, called a Completed Value Builder's Risk, will insure a building up to completed value as construction progresses. Since there are differences from state to state, know exactly how you are protected locally.

#### **Beware Hazel's Daughters**

Smoke loss may exceed fire loss, as one builder, also a supply dealer, found out. Smoke from a fire in a stock of paint in his basement

Fire & Lightning	☐ Workmen's Compensation
☐ Smoke	☐ Transportation Perils
☐ Windstorms and Hail	☐ Boilers and Machinery
☐ Explosions	☐ Equipment Loss or Damage
Riot	☐ Burglary, Theft and Robbery
Aircraft & Vehicle Damage	☐ Contractual Obligations
Destruction by Vandals	☐ Bad Debts
☐ Installation Risks	Dishonesty, Disappearance
☐ Negligence	& Destruction

damaged stock and property worth several thousands. Separate coverage is required when smoke damage occurs without fire loss, as from a blow-out of a faulty oil burner.

The Hurricane sisters, Carol, Edna, and Hazel, have alerted builders to another ever-present threat, windstorm and hail damage. Hazel alone cost insurance companies more than \$75 million. Fewer than 10% of the stores in Waco, Texas were protected when the 1953 tornado ripped its \$50 million trail through town. Take heed.

#### A Multitude of Evils

Explosions, as from a leaking gas main, half-empty cans of paint, even sawdust, are unpredictable. Boilers or other fired vessels cry out for insurance. Riot from civil commotion, damage from aircraft or vehicles, destruction by vandals, as from teenage gangs, are dangers the likelihood of which depends on the location of the building site. A single addition to the basic fire policy, called an Extended Coverage endorsement, will cover these hazards.

#### Too Prosperous?

Installation risks in large numbers beset the builder as a purchaser of materials and equipment, especially for industrial buildings. A special all-inclusive policy insures such property from the time it leaves the place of shipment until installation.

Under the heading of Contractor's Operations, the foremost hazard is a possible claim for negligence. Even when you are innocent, it is hard to disprove a claim that you have not taken ordinary care; settlement can be troublesome and expensive. There is no exact definition of negligence, and the jury must decide. The trend has been to large judgments if the defendant is a prosperous business.

Liability insurance should also cover motor vehicles, for bodily injury, property damage, and medical payments. All states now have financial responsibility laws.

Workmen's compensation is also mandatory in most states, which have varying requirements.

#### Freight Charges vs. Insurance

Public carriers may be less liable for transportation perils than you may think. Even where their negligence can be proved, their liability is often modified by "released value" bills of lading to ten cents a pound. Loss of 150 pounds of special hardware will cost the carrier \$15, despite the real value of several hundred. If you demand a "straight" bill of lading, there will be an additional freight charge. Better insure.

A policy on boilers and contracting machinery will protect against property damage or personal injury by explosion or other mishap, and will also provide for periodic inspection of equipment to assure proper maintenance, eliminating the need for a costly shut-down later.

(Continued on page 162)



Write today for complete tool catalogue - FREE

SYNTRON COMPANY 618 Le xington Ave. Homer City, Pa.

## Builders, better check your insurance

continued from page 161

A special "floater" policy, recently introduced, on loss or damage of equipment is especially valuable for contractors operating several locations at once and moving their shovels, graders, and hoists around. Another all-risk policy covers handtools and special smaller equipment.

One of the favorite targets of burglary, the the building under construction, including equipment and materials. The FBI reported recently that 1100 places were looted daily in 359 cities surveyed across the country. Underwriters generally recommend, in addition to coverage against such loss, a special 3-D policy, against dishonesty, disappearance, and destruction.

#### **Absorbing Bad Debts**

Special protection against contractural obligations is available, should the builder be unable to carry a job to completion. And as serious as fire loss can be loss from bad debts. Most builders rely on reserves to absorb normal bad debt losses, but a policy will protect from excessive losses.

This outline gives you an idea of the pitfalls lying in wait—some right in your path, others less immediate. Better call in your insurance agent to fill you in on the latest ideas available for fuller and better pinpointed coverage for your specific needs.

#### A Parable

One day two workmen were removing the ventilating stack of an old spray booth with acetylene torches, which touched off an explosion. Dried paint was thrown onto the roof and set fire to the entire building—property loss, \$600,000. The contractor was charged with negligence, and after months of costly court action obtained a reduced settlement of \$175,000. He was not insured for a cent of this loss.

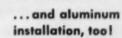
Success in building hinges on your ability to plan, schedule, and estimate. How carefully are you planning your insurance?





The simplicity of this Reynolds Aluminum window fits the basic TECHBUILT idea of a distinctively designed packaged house that goes up quickly and economically. This horizontal sliding unit becomes part of the shell -no projections, no problems. It is the easiest type to install. Vents open with fingertip ease, close tight, lift out for cleaning. In the latest Reynolds Window Catalog, the horizontal sliding type is represented by a full line of Reynolds Aluminum Traverse Windows. They are available in double vents, single vents and the popular strip series.

In the same 32-page catalog are full details of the widely preferred Reynolds Aluminum Casement Windows, Awning, Double-Hung, Basement and Utility Windows. Write for your copy. Reynolds Metals Company, Window Division, 2003 S. Ninth Street, Louisville 1, Ky.



Techbuilt specification for twoply aluminum insulation in the roof panels is dependably met by a double application of Reynolds Aluminum Reflective Insulation, Type B. Available in rolls of 250 sq. ft., 25", 33" and 36" wide.

Reynolds Metals Company, **Building Products Division**, 2003 S. 9th St., Louisville 1, Ky.

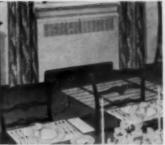
REYNOLDS 28



UMINUM

BUILDING PRODUCTS





Convectors or Radiators



Heating coils in coiling or floor or Radiant Baseboards

You may choose any type of modern heating unit for today's Hot Water System.

## THRUSH Radiant Hot Water Heat

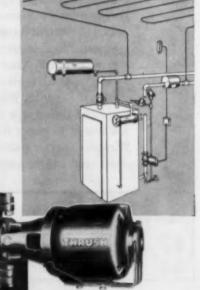
#### FOR EASIER SALES

HOME BUYERS prefer Hot Water Heat because it provides more uniform heating at lower cost. Builders like it too, since new developments in highly efficient units for smaller heating plants reduce installation costs materially.

Today the complete Thrush System can be installed within the budget of the smallest home. See illustration at right.

This outstanding equipment provides the most economical and completely automatic controls for radiant hot water heat offered today. Get the facts, now!

For more information please see our Catalog in Sweet's or write Department G-8 today.



THRUSH WATER

H. A. THRUSH & COMPANY

PERU, INDIANA

## Show steel building erection techniques

A demonstration of construction techniques was a program highlight at a recent Galesburg, Illinois, clinic for prefabricated steel building dealers. Butler Manufacturing Co. was the sponsor.

A trained crew put up the frame of a 60-foot long, 50-foot wide. 12foot sidewall model in two hours, the company said. The number of bolts used to assemble the four frame sections had been reduced from 304 to 176 without loss of strength, it was reported. Electric tools were used for fastening.

After the frame was up, the visiting dealers helped finish the building, using recommended erection techniques.



Ground assembly: reinforcing plates are bolted to roof beam ridges



Cross members and reinforcing rods go in place to complete frame



Near completion. Job was far advanced in less than four hours

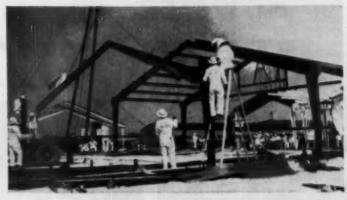
KEYSTONE

ries to Dept. 8

LANCASTER 2, PA.

Courtesy, Ingersoll-Rand Co.

AUGUST 1955



A-frame hoist powers the placing of roof beams on columns



## Only WATER can give your homes all these

## SELLING FEATURES!



With modern baseboard or radiant panels, every inch of the house is kept in warm, draft-free comfort.



In a water cooled home, correct compensation can be made for summer heat gain.





The B & G Hydro-Fle System provides a year 'round supply of hot water for kitchen, laundry and bath. Plenty for automatic clothes and dish washers.



Snow melting coils can be installed under drives and side-walks and circulated with hot water from a B & G Hydro-Flo System.



## Hydro-Flo Systems

\*Reg. U. S. Pat. Off.

This is today's most versatile provider of year 'round comfort and convenience! All the benefits of a B & G

Hydro-Flo System can be enjoyed at once or added as the owner's budget permits.

Starting with the basic Hydro-Flo Forced Hot Water Heating System, you give your homes radiant, sunny warmth...draftless rooms... warm floors. Automatic modulation keeps indoor temperature uniform—no wasteful over-heating. In addition—a limitless supply of domestic hot water, heated by the same boiler that heats the house.

Next, Hydro-Flo snow melting equipment can be added, to keep drive and sidewalks free of snow and ice. And now or later, summer cooling can be provided in a choice of several ways.

Get the complete story-send for free booklet.

## BELL & GOSSETT

C O M P A N Y Dept. DZ-11, Morton Grove, III.

Canadian Licenses: S. A. Armureng Ltd., 1400 O'Conner Drive, West Toronto

### Your Guide to **NEW PRODUCTS** Information



New snap-lock assembly speeds wall and base cabinet assembly



Base cabinet storage can be quickly changed from this . . .

### Cabinets have interchangeable drawers

In the new American-Standard kitchen cabinets, deep or shallow drawers, sliding wire shelves, vegetable and fruit bins, cup and condiment racks can be installed in a variety of combinations, and easily rearranged. Wire shelves are adjustable at one-inch intervals in wall cabinets to accommodate anything from shallow serving dishes to tall pitchers. The wire shelves can be installed in any base or wall cabinet. Steel front edging on all shelves and a retaining guard at the rear of sliding shelves prevent stored items from falling off either end. Exposed drawers are available in depths of six and twelve inches; concealed

drawers are three and nine inches deep. Doors swing open on concealed hinges with nylon washers and catch at 120 degrees to prevent bumping of adjacent cabinets. With new snap-lock assembly, cabinets are securely fastened to each other by crimping a uniform length of channel over edges of adjacent cabinets for aligned and tight-fitting joint without use of screws and bolts. These cabinets are available now through established wholesalers and dealers. American Radiator & Standard Sanitary Corp., Dept. AB, Attn. Donald Kilgore, P. O. Box 1226, Pittsburgh 30, Pa.

Circle No. 801 an coupen, page 172



. . to this



Utility cabinet is an appliance center



Sliding shelf and doors in one cabinet



Corner shelves pivot individually

#### Your Guide to NEW PRODUCTS Information



Emec-Rok is supported and held to the wall surface by galvanized clips



Both the top and bottom of Emco-Rok are secured to the sidewall

#### Siding looks like stone, is nailed on

Emco-Rok is a simulated stone product composed of mineralized fibers compressed under pressure. Approximately 1½-inches thick throughout its surface, Emco-Rok can be applied over any surface, is light in weight (about one-half the weight of ceiling plaster) and is said to be indestructible to the elements. The material can be applied to a frame

house with special metal clips. The clips are self spacing so that a real masonry joint is applied between courses. List price: \$40 per square. Available through established bondstone dealers. Emco Cement Products, Inc., Dept. AB, Attn. E. I. Mesnick, Shamokin-Sunbury Hwy., Paxinos, Pa.

Circle No. 802 on coupon, page 172



Clips and nails are completely imbedded in mortar. Each stone is held solidly to wall

#### Trim for drywall snaps on

Snap-On Trim is a new drywall accessory item which reduces labor costs in trimming window and door



Snap-On Trim is installed after frame is placed in door opening. Saw kerfs are slots to accept trim

openings. The new trim snaps in place quickly and stays in place permanently. It is estimated that one side of a door opening can be trimmed with Snap-On in about four minutes. No nails or special tools are required for installation. Snap-On Trim is delivered to the job with the side sections having right and left mill-cut copings. Head sec-



Trim must be measured for accurate fit. Head trim is cut to proper length with aviation Metal Master tin snips

tions are rough cut on the job. U. S. Gypsum Company, Dept. AB, Attn. H. R. Deadman, 300 West Adams St., Chicago, 6, Ill.

Circle No. 803 on coupen, page 172

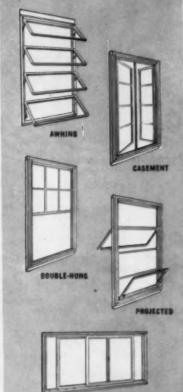


Trim projects less than ¼ inch from finished walls, is good guide for wallpapering, can be painted

QUESTION:

KNOW WHY
SOME HOUSES
SELL FASTER
THAN OTHERS





## ANSWER: Quality Approved ALUMINUM WINDOWS

Today, home buyers are looking for better value. They want houses that offer better living, more convenience, lower maintenance. And that's why more and more builders are finding "Quality-Approved" aluminum windows a real asset in selling their houses.

"Quality-Approved" aluminum windows—whether they be doublehung, casement, awning or projected type—have been designed and constructed to meet recognized quality standards and have been tested and approved by a well-recognized, independent laboratory for quality of materials, for construction, for strength of sections and for minimum air infiltration.

To make your houses more saleable, give them the magic "touch of quality" by including "Quality-Approved" aluminum windows complete with screens and storm sash, all in one single-package mortgage.

For additional information consult Sweet's or any of the manufacturers listed below, or write direct to Dept. AB-558.

Aluminum Window Manufacturers Association
75 WEST STREET, NEW YORK 6, N. Y.

.............



MEMBERS: Alcosco Products, Ins., Detroit, Mich. • The Wm. Bayley Co., Springfield, Ohio Bourne Products, Inc., El Cajon, Calif. • Coto Seei Products Corp. (Sterling Aluminum Window Division), Chicago, Ill. • Cupples Products Corp., St. Louis, Mo. • Durelite Window Corp., Knoaville, Tonn. • Fentron Industries, Inc., Scottle, Wash. • Michael Flynn Mfg. Co., Philadelphia, Pa. • General Bronze Corp., Garden City, N. Y. • Metal Aris Mfg. Co., Ins., Atlanto, Go. • Reynolds Metals Co. (Parts Division), Louisville, Ky. • The F. C. Ruscell Co. (Aluminum Division), Bristol, Pa. • 3. 5. Them Co., Philadelphia, Pa. • Universal Window Co., Berkeley, Calif. • Wase Leberatovies, Inc., Miami, Florida • Windows Corp., Konvil, N. J.

## Save Man-Hours

- · On the Job
- · In the Shop

## → BOICE-CRANE POWER TOOLS

Do Better Work, Quicker
—and at Less Cost!



(Pat. Applied For)

#### BOICE-CRANE JOINTERS



trees of all kinds, or fer any cabinet work or lussy fitting. 3 sizes 18 models. Extra-long tables and double locked rigid fences. Even unskilled operators can food the longest facer, roll, door, or after place without affort or danger of work spellage.

#### BOICE-CRANE PRECISION SHAPER

Runs caped joints, nessed stair troads, drawer and lipped cuphoard fronts, matching old-style milliwork. Rns trim (including bacs, shoe, crewn and core mold, window stop), window blinds, storm windows, stream, interior paneling, oven special windows, commercial-grade sash, double-hung sascment—ALL AT LOW COSTI flux wide moutdings and dear raised penels in one cut. Buccomes TRU-FORM cutters for trim, cabinets, sash fel til shopers.

#### BOICE-CRANE COMPANY

964 Ce	966 Central Avenue			Tol	Toledo 6, Oh		
Please calning.		free	Boice-	Crone	Pawer	Tool	
NAME		****	*****	*****			
STREET		****	*****		******		
CITY &	STATE	l				****	

## BUILDER

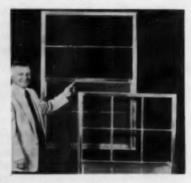
#### Your Guide to NEW PRODUCTS Information



#### Safety rail makes bathing safer

A safety rail prevents accidents when getting in and out of the bathtub. Saf-T-Rail can be installed in any bathroom without locating studs. It can be mounted in a corner and extends 25 inches each way with a 22-inch vertical arm extending down toward the tub. The rail is of 1-inch aluminum alloy with a polished chrome-like finish. Saf-T-Rail Industries, Dept. AB, 1445 4th St. So., St. Petersburg, Fla.

Circle No. 804 on coupon, page 172



### Aluminum window ready to install

The Apco aluminum window is delivered ready for installation—completely glazed, screened and weatherstripped, with necessary hardware included. Among the features of the Apco window is the fixed upper sash—important for an air-conditioned house. The meeting rail of the Apco Window is tenoned through the jambs, giving rigidity and structural strength. Available through established distributors and dealers. Aluminum Products Company, Dept. AB, Attn. Edward H. L. Clarac Jr., 1901 Franklin Ave., Houston, Tex.

## Paint is both primer and aluminum finish

Rust-tard is a dual-purpose protective paint for metal surfaces that gives a two-coat job with one application. Rusttard combines zinc chromate, well
known as a rust inhibitor, and aluminum pigments. When the coating is
brushed on a metal surface, the zinc
chromate drops to the bottom of the
paint film to stop rust and corrosion.
The aluminum metal leafs swim to the
surface to form a finished aluminum
coat. List price is \$6.50 to \$7 per gallon depending upon freight charges. The
Garland Company, Dept. AB, Attn.
Everett Shipment, 3748 East 91st St.,
Cleveland 5. Ohio.

Circle No. 806 on coupon, page 172



#### Masonry cutting blades are triple reinforced

Polk-A-Dot break-resistant abrasive blades for masonry cutting are reinforced out to the cutting edge with glass fiber webbing, have extra reinforcing on both sides at the hub. Both sides of the blade are symmetrically covered with raised abrasive "polkadots" each acting as an extra cutting edge. Polk-A-Dots are available in 12-, 14-, and 18-inch diameters. Prices on the 14-inch blades range from \$5.97 each in the 10-19 quantity bracket to \$4.95 each on purchases of 250 or more blades. Clipper Mfg. Co., Dept. AB, Attn. Harold J. Wright, 2800 Warwick, Kansas City 8, Mo.

Circle No. 807 on coupon, page 172

## Adhesive bonds metal to wood without pressure

Roltite Industrial Cement bonds aluminum, steel and copper to themselves or to wood. The new contact-type adhesive bonds without the need for clamps or presses, and will dry in less than three minutes. Among the other materials which can be bonded instantly and permanently are plastic laminates, plywood, wood veneer, Masonite, Novoply, rubber, leather, and masonry surfaces. Midcontinent Adhesive Company, Dept. AB, Grove City, Ohio.

Circle No. 808 on coupon, page 172

AMERICAN BUILDER

# CORBIN

## Guardian



No Die Cast Parts cases and all internal parts are hoavy pressed steel



Rounded Corners on strikes and latch fronts when so specified; otherwise square corners



All External Parts are wrought brass, bronze or aluminum metal

#### THE MORE YOU BUILD THE MORE YOU SAVE

Project builders are discovering that Carbin Guardian Locks bring them important dollar savings. These locks are priced competitively with other low-cost locks, yet they after time-saving installation advantages and trouble-saving construction advantages. They are the quality leaders in the low price field — backed both by the Carbin reputation for fine products and a full guarantee of our parts and workmanship. Ask your Carbin dealer for a demonstration and prices — today!



P&F CORBIN Division

These Aids insure top-speed installation









Baring Ji

#### Your Guide to NEW PRODUCTS Information



## Gas wall heater features forced warm air circulation

Warmed room air is pulled in at the top of the new Forsaire gas wall heater by an 81/2-inch dual inlet blower, forced down over the heating element and out through diffuser type grilles to the floor. Warm air circulation at lower room levels is said to heat more area, climinate heat layers. The Forsaire measures 14 inches in width, 7 inches in depth, can be recessed between 2x4 or larger studs on 16-inch centers. Fully automatic, the Forsaire is available in sizes from 50,000 to 63,000 Btu input. The unit installs in a one-story tract house for an estimated \$175 including vent and labor. Williams Furnace Company, Dept. AB, Attn. I. V. Hodgkinson, 1821 Flower St., Glendale Calif.

Circle No. 809 on coupon, this page



#### Rustproof track and guide for by-passing glass doors

Track and upper guide for ¼-in. bypassing glass doors are of anodized aluminum, with hard-fibre inserts. Available in two types, one for centered installations, the other for exposed flush installations, in 4-, 5-, and 6-foot lengths. Flanges are drilled at 6-inch intervals. Tracks can be cut to size with a hack saw. Retail price of track: 57 and 66 cents per foot. Available through wholesale hardware, glass and builder's hardware distributors. Engineered Products Co., Dept. AB, Attn. Hayes Scott, Box 118, Flint, Mich.

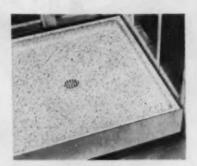
Circle No. 810 on coupon, this page



## Ceramic patterns keyed to latest design trends

Pan-O-Ramic patterns are composed of various sized tiles and are available in a number of different color combinations to suit the color treatment desired. Thirty-one different porcelain-type colors, and fourteen natural clay-type colors can be used. All Pan-O-Ramic patterns are factory assembled on standard-sized sheets for easy installation. A design service is available. Installed prices range from \$1.50 to \$2.50 per square foot and vary with job conditions and location. American-Olean Tile Co., Dept. AB, Lansdale, Pa.

Circle No. 811 on coupon, this page



## Precast shower floors simplify construction

No special construction or added support is needed to install these precast shower floors. After the subfloor is laid in the usual manner, the shower floor slides into place. The plumber makes drain connections quickly and easily while installing the floor, and there is no wait for curing as required by floors poured on the job. Since precast shower floors are not fastened to the framing or bonded to the subfloor, they are not damaged by building settlement. List price of precast receptors range from \$20 for 32-inch size to \$40 for 40-inch size. Distribution is through plumbing wholesalers. Fiat Metal Mfg. Co., Dept. AB, Attn. G. C. Hay, 9301 Belmont Ave., Franklin Park, Ill.

Circle No. 812 on coupon, this page

#### USE THIS COUPON FOR FREE INFORMATION ON PRODUCTS AND EQUIPMENT

CIRCLE ITEMS ON WHICH YOU WISH M	ORE INFORMATION. MAIL TO AMERICAN B	UILDER, 79 W. MONROE ST., CHICAGO 3, IL	
801. Kitchen cubinets with inter-	823. Accordion door	831. Fiberglas awnings, canopies	
changeable drawers	824. Drinking fountains in color	832. Vermiculite acoustical plastic	
802. Siding that looks like stone	825. Expansion joint for plaster	833. Sectional steel scaffolding	
803. Trim for drywall	826. Air conditioning wall unit	834. Steel garage doors	
804. Safety rail for bathtubs	827. Garage door panels	835. Electronic controls manual	
805. Aluminum window	828. Plastic wall tile	836. Steel "Junior Beams"	
806. Paint for motal surfaces	829. Cabinets in birch and knotty	837. Roofer's insulating guide	
807. Masonry cutting blades	pine	838. Catalog of houses	
608. Adhesive for bonding metal to		839. Air filter	
wood	CATALOGS	840. Shower doors	
809. Gas wall heater	830. Uses for red cedar siding	841. Bullgrader and bulldozer blades	
810. Track and guide for glass door		arri arrigional and arrival and arrival	
811. Ceramic tile patterns			
812. Precest shower floors	SERVICE ON THIS COUPON EXPIRES IN	90 DAYS-ACT NOW! (AUG. 1955)	
813. Affic fon			
814. Air cooling unit	MAMP		
815. Boiler under 3 feet long	NAME		
816. Guard and guide for power saw	PIRM	*****	
817. Aluminum inleusie windew	PIKM	TITLE	
818. Atuminum insulation	CERTIF		
819. Seem filler for Formica counters	STREET	**********************	
820. Cooling tower for Fibergies	41914		
821. Studeboker trucks	CITY	ZONE STATE	
632 Circular diffusers	Please print name		

## Ingersoll

Julululufulide

Economy takes two forms: shortcuts to lower the quality of a product and therefore the price, or as Ingersall achieves economy, modern production methods using the latest materials, such as stainproof, acid-resisting parcelain-on-steel. Thus, the Ingersall way means economy without sacrificing quality. It's easy to see how this modern economy can benefit you and your customers. ... take a glance at the economy features afforded you by Ingersall plumbing products.

LOWER INITIAL COST due to moss production methods and modern materials

LOWER HANDLING COST due to light weight ... less shipping charges less damage in transit.

LOWER INSTALLATION COST due to die-formed accuracy and light weight one man installation.

LOWER REPLACEMENT COST to consumer as Ingersall's quality means longer life greater wear.

INGERSOLL PRODUCTS DIVISION
Borg-Warner Corporation
1000 WEST 120TH ST., CHICAGO 43



for 2,250 low cost homes

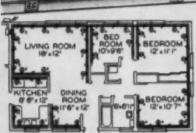
#### Builder MELVIN B. FISHER

President Fisher Homes, Inc. Markham, Illinois

"Plugmold in every room of our Markham Project Homes is one of the many plus values we have to give our customers - a value which can, and often does mean a sale."







The floor plan of the Fisher Markham home shows location of duplex Plugmold receptacles. No. 12 conductors give Plugmold wiring ample capacity for modern electri-

cal devices.

Builders everywhere find PLUGMOLD **Attracts Home Buyers** 

Fisher Homes, Inc. find that Plugmold is a sales stimulant in their new Markham, Illinois project, where it is being used to provide duplex electrical outlets every 5 feet in every room of their 2,250 six-room homes, priced at \$11,990. Ed Tapp, Fisher Sales Manager, says: "7 out of 10 women prospects inspecting our model home ask about electrical outlets. We have the perfect answer for them."

For more information, Write Dept. B8

The WIREMOLD Company HARTFORD 10. CONNECTICUT

## BUILDER

**NEW PRODUCTS** 



#### Attic fan designed for economy operation

Coolair Type-P fans have efficient V-Belt drive, ball bearings in fan and motor (factory lubricated). Coolair offers four fan sizes with five single-speed and five two-speed models, with air capacities from 5,000 to 15,000 CFM. Coolair Type-P fans and attic packages can be purchased with or without a plywood suction box. Suggested retail price for fan model P2616: \$118 for fan alone; \$150 for attic package (fan and shutter); \$168 for attic package with box. American Coolair Corporation, Dept. AB, P. O. Box 2300, Jacksonville, Fla.

Circle No. 813 on coupon, page 172



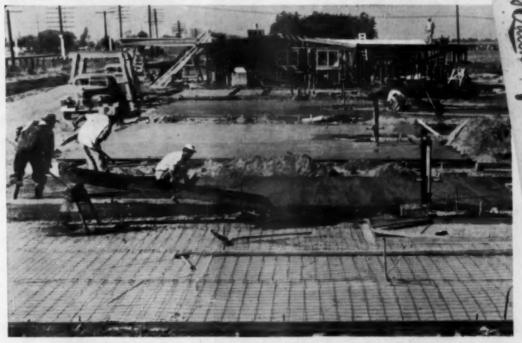
#### Economy air cooling unit

This new unit does not require plumbing, needs only one electrical connection and little duct work. Mounted in the floor, it is similar in appearance to a floor furnace. The units are made with either a 2- or 3-h.p. compressor motor. The 2-h.p. motor delivers 2 tons of cooling (house up to 1,500 square feet). The 3-h.p. motor delivers 3 tons of cooling (home up to 2,000 square feet). Retail price of the 2-ton model: \$856.95, 3ton model: \$999.95. General Air Conditioning Corp., Dept. AB, Attn. W. H. Laband, 4542 E. Dunham St., Los Angeles, Calif.

Circle No. 814 on coupon, page 172

AMERICAN BUILDER

## protect concrete slabs, crawl spaces from subsoil moisture . . . permanently



Warren Olson, Oakland, Calif., member of NAHB, is another builder who protects the hundreds of homes he builds from moisture by using VISQUEEN film under the concrete slab.

Water is a natural enemy of woodframe construction. As much as 12 gallons per 1,000 square feet per 24 hours evaporates from unprotected crawl spaces into stud walls causing rot, paint peeling and other damage. Many gallons seep into unprotected concrete slabs, resulting in cold floors, higher heating bills and costly damage to household goods.

You can keep this water out forever with VISQUEEN film—at a very modest cost. A moisture barrier of VISQUEEN film in place beneath the slab, is ageless and changeless.

1,000 square feet of 4 mil weighs less than 20 pounds. VISQUEEN is made in widths up to

20 feet . . . saves you money on labor costs. For detailed information clip the coupon, attach to your letterhead and mail.

Use VISQUEEN under concrete slabs or floors \* in crawl spaces \* on warm side of outside walls and top floor ceilings \* wherever moisture vapor or water must be locked out.

important! Visqueen film is all polyethylene, but not all polyethylene is visqueen. Only visqueen, produced by process of U.S. Patents No. 2461975 and 2632206, has the benefit of research and resources of The visking Corporation.

## DOLLAR SAVING "ON THE JOB" uses of VISQUEEN film

Cover prefinished floors in place. Build partitions right over the film. Salvage for re-use wherever needed.

Cover building materials, tools, equipment.

Close openings during cold or stormy weather. VISQUEEN film lets in all the light.

#### look for this name on the selvage!

Vis Queen film ... a product of

THE VISKING CORPORATION, Box AB8-1410

Plastics Division, Terre Haute, Indiana

World's largest producers of polyethylene sheeting and tubing

In Canada: VISKING Limited • Lindsay, Ontario In England: British VISQUEEN Limited • Stevenage

Name\_\_\_\_

Title

Products.



## BUILDER

#### **NEW PRODUCTS**



#### Boiler less than 3 feet long

Crane's cast iron boiler called the "Sunnyday" is designed for automatic firing with either oil or gas, is one of the smallest cast iron boilers made. Its smallest assembly is less than 3 feet long even with the extended jacket, less than 4 feet high and 2 feet wide. Price: \$580.20 for 129,000 Btu output unit. Price includes oil burner, tankless heater, all controls and circulating pump. Available now through established dealers. The Crane Co., Heating Division, Dept. AB, 836 So. Michigan Ave., Chicago, Ill.

Circle No. 815 on coupon, page 172



#### Guard-and-guide makes power sawing safe

This guard-and-guide affords protection in the operation of any conventional table saw with blades of 6 to 16 inches in diameter. Features are the precisionengineered guard standard of cast aluminum, and the transparent shield of shatter-resistant 1/2-in. thick Plexiglas plastic which covers the saw, while allowing full vision and complete accuracy in a wide variety of operations. A quick flick of the knob sets the guard into any of three operating positions in extension plates attached to the table top. Price for Brett-Guard No. 10A (8- and 10-inch diameter saw blades): \$79.50. Brett-Guard Company, Dept. AB, Attn. D. Schwarzstein, 5 West Sheffield Ave., Englewood, New Jersey.

Circle No. 816 on coupon, page 172

## NOW- LUDMAN QUALITY FOR EVEN THE LOWEST-PRICED PROJECT HOUSES!

Ludman's NEW Housing Window With FULL WEATHERSTRIPPING .... CENTER ROTO-OPERATOR . . . . SMART, MODERN APPEARANCE . . . . At A Price Within The Reach of EVERY Project Builder Here's a type of window that's sweeping the country in major building developments, Now, LUDMAN Engineering Research has established new quality standards . . . Completely Vinyl Weatherstripped to make it the tightest-closing Housing Window . . . with beautiful Center Under-Screen Roto-Operator to make it the easiest to operate . . . , with handsome, substantial sections for smart, modern appearance.... designed to make it easiest to install. Unlimited combinations are available, with any desired venting arrangement, Although designed for layest-priced housing, this quality window has features that make it desirable even in the best homes. The coupon will bring you all the facts about this window. TEADERSHIP IN WINDOW ENGINEERING ... botter products for the project builder FOR THE BUILDER WHO WANTS TO ADD PROVED SALES-APPEAL by providing an awning window with 100% ventilation and an exclusive night vent, the famous AUTO-LOK . . . recognized everywhere as the finest . . . known as the tightest-closing window ever made . . . . adds the "Quality-Look" and consumer acceptance. Successful Project Builders from Coast to Coast have learned that AUTO-LOK is worth the difference! Another LUDMAN Contract-Closer . . . the new Aluminum All-Weather Sliding Glass Doors ... engineered by LUDMAN with the builder in mind. Easiest to install . . . . no adjustment required .... smartest appearance .... exclusive separate sub-sill prevents damage during construction..., and many other exclusive features. Investigate the cost of using LUDMAN'S finest **Ludman Corporation** quality Sliding Glass Doors. You'll be amazed SEALS TIGHTER North Miami, Fla. Dept. /48-8 at how much sales-appeal you'll add to your THAN A REFRIGERATOR Please send me full information on: house . . . sales-appeal that adds value out of Auto-Lok Windows all proportion to the slight extra cost (Frequently, Sliding Glass Doors may be installed at no All-Weather Sliding Glass Doors more cost than conventional wall construction.) ☐ The new Housing Window LUDMAN Corporation City..... Zone... State.... PRODUCTS ARE CARRIED BY LEADING DEALERS ACROSS THE COUNTRY



Here's a practical and proved non-mortise hinge you can depend on to make door hanging easier, faster and more economical—and give complete satisfaction.

#### **8 BIG QUALITY FEATURES**



- Beavy by shoulder...means extra supporting strength.
   BeZ-Out Pin...it comes out with a flick of the screw driver...at the top—for easy application.
  - \$ Non-rising pin . . . pin stays in place . . . where you want it when door is hung.
- 6, Heavy gauge . . . not lightweight . . . made to carry a door 1%" thick.
- Staggered screw holes...regular drilling...won't split wood doors.
- 6. No special tools required . . . screw driver does the whole job.
  7. No mortising . . . hang doors quicker . . . 3 times faster. And if door must later be removed—neither door nor jamb is permanently marred.
- . . Self aligning . . . easy to use . . . no measuring or cutting.

Available in the popular 3½ inch size...in your choice of three finishes—dull brass plated, bright nickel plated and bonderized prime coated.

Order now from your Building Supply Dealer or Hardware Dealer—or write for folder giving detailed information.



#### BUILDER

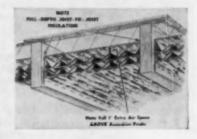
#### **NEW PRODUCTS**



#### Aluminum jalousie window with extra lock protection

First developed for its protection value against hurricane and other tropical storms, this all-aluminum louvered jalousie is designed with an interlocking feature, every louver locking together for complete protection when closed. Available with skylight which allows ample light to enter when window is closed, and in a variety of bakedon enamel colors. Schwab Jalousie and Awning Co., Inc., Aluminum Louvered Div., Dept. AB, Attn. R. Van Fleet, 3855 North Miami Ave., Miami, Fla.

Circle No. 817 on coupon, page 172



#### Aluminum Insulation is 3 inches deep

In addition to three aluminum sheets and two accordion fibers which reach from joist to joist, this new 3-inch deep aluminum insulation has six reflective spaces. The top inner space has been substantially increased to a full inch clearance above the peaks of its accordion fiber pleats. This further reduces heat flow by convection and conduction. This Type 6PS insulation is made for 16- and 24-inch centers and is packaged in cartons containing 250 sq. ft. of insulation. List price: 81/2 cents a square foot. Distributed through lumber dealers. Infra Insulation Inc., Dept. AB, Attn. S. Frey, 525 Broadway, New York, N. Y.

Circle No. 818 on coupon, page 172



SONOAIRDUCT FIBRE DUCT

for SLAB-FLOOR
Perimeter
Heating Systems!

Continuous national consumer advertising is telling your potential customers about SONOAIRDUCT Fibre Duct time, labor and money saving advantages. Keep pace with the demand we are creating by writing for details today!

SONOAIRDUCT

complies with F. H. A. minimum property requirements. It is made for all types of gas and oil fired warm air perimeter systems where the duct is encased in dense aggregate concrete. 23 sizes -2" to 36" I. D., up to 50' long. Can be sawed to exact lengths on the jobi





See our catalog in Sweet's

Write for Complete Information and Prices

#### SONOCO PRODUCTS COMPANY

COS ANGCLES CAL

HARTSVILLE S C - MAIN PLANT

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MEXICO: Sonoco de México, S. A., Aportado 10239, México, D. F.



#### ... GIVE YOU ALL THESE FEATURES

DURABLE WELDED STEEL

One-piece heavy-gauge steel body with welded joints . . . reinforced at top with 1½ x 1½ x ½ inch steel angles . . . protected by heavy coat of aluminum paint.

#### SMOOTH INTERIOR

Free of rivets or other projections, these boxes assure fast mixing and easy thorough cleaning.

#### LEAKPROOF CONSTRUCTION

An accurate mix every time! These boxes eliminate leakage and absorption of water common with wooden boxes.

#### EASY TO HANDLE

When mortar box is moved, reinforced angles offer a comfortable place for lifting. They nest compactly for shipping or storage.

#### PROTECT MATERIALS

Being absolutely waterproof, these all-steel boxes can be used as a temporary roof over plaster and cement bags.

#### SIZES, DIMENSIONS AND WEIGHTS

Note: Number of box indicates approximate cubic foot capacity.

Order by No.	Width Inches	Length Inches	Depth Inches	Shipping Weight Lbs.
31	42	110	12	190
22	42	86	12	155
14	36	68	12	124
9	28	70	10	79
6	24	53	9	52
*34	26	96	23	136

\*Lime soaking or Putty Box.

Write today for literature.



THE DONLEY

3910 MILES AVENUE . CLEVELAND 5, OHIO



VISIT OUR DISPLAYS: Architects Samples Corporation, N.Y.C.



### CMC Job Mixers backed by 46 years of mixer manufacturing experience

In mixer manufacturing as in everything else — experience pays off! CMC's close to half a century in the business plus the best of know how assure you of mixers that are the biggest money makers in the field.



Take the 3½S tilter pictured above. It has four (not two or three) special mixing blades. Add to that its unique figure "B" mixing action — and no wonder you get better concrete from a WONDER!

3½ to 16 cubic foot Non-Tilts available. Write Construction Machinery Company, Waterloo, Iowa.





Saves 50 - 60% of your saw costs because Mord-Tip Saws last from 4 to 6 times longer before dulling. Eliminates sharpening... and you're always assured of smooth, fast cutting—ne vibration due to impreser sharpening. Mard-Tip is the modern circular saw blade made to meet the most exacting requirements of the master craftsman, and the economical requirements of the week-end shapster. Only \$1,93 for Standard Type "C" 6 inch. Equally low prices on all sizes up to 16 inch.

Write today for Catalog & Folder and Prices
Over 5,000 Dealers in U. S. A.

THE F. HEINEMANN SAW & MANUFACTURING CO.

#### NEW PRODUCTS



#### Seam filler for Formica counter tops

SeamFil is a ready-mixed and ready-touse filler for use in seams in long Formica counter tops or sink-top returns. SeamFil is squeezed from a tube and is worked into the joint. It comes in a kit of 12 tubes. There is a matching color for nearly any Formica pattern. Kit also contains Formica SF-99 Solvent for cleaning seam and for wiping off any excess filler after closing the seam. Putty knife is also included. Price of kit: \$6.50. Available through all authorized Formica distributors. The Formica Company, Dept. AB, 4614 Spring Grove Ave., Cincinnati 32, Ohio.

Circle No. 819 on coupon, page 172



#### Cooling tower of Fiberglas

Duro-Lite Fiberglas cooling towers weigh only about one-third as much as steel towers. These units are rustproof resistant to fire and acids, and do not need to be painted. Present sizes of the towers are from 3 to 10 tons, with additional sizes up to 25 tons in the making. Distribution is through established wholesalers and dealers. List prices: 3ton, \$270, 5-ton, \$335, 71/2-ton, \$400, 10-ton, \$500. There are additional prices for accessories. Baldwin-Ward Manufacturing Company. Dept. AB, Attn. Reid Ward, Ottawa, Kas.

Circle No. 820 on coupon, page 172

Myers Pumps... A NAME YOU CAN MERCHANDISE profitably

Brand-conscious buyers, shopping for a home, look for and prefer nationally-advertised fixtures, hardware and appliances. In a home beyond the mains, the right name on the water system can spell the difference between "no sale" and a handsome profit.

You will have faster, easier beyond-themains sales if you specify Myers Pumps for the homes you build. Myers is the pump line with the extras you can merchandise for profit.



EXTRA QUALITY-Top design and engineering, the best in materials and workmanship backed by a straightforward warranty unsurpassed in the industry.

FULL LINE - Whatever your building requirements, you'll find the right pump in the Myers line. It includes jets, plunger type, submersibles, centrifugals and sump pumps in full range of capacities and models.

EXTRA ADVERTISING—Consistent national advertising in America's leading home and farm magazines is keeping the Myers name a leader in the minds of prospective home buyers. Watch for Myers ads in Better Homes and Gardens, American Home, Household, Small Homes Guide, Home Modernizing, Successful Farming, Capper's Farmer and other leading publications.

EXTRA SERVICE-All Myers dealers, including plumbing and heating contractors, stand behind every Myers pump with fast and expert service. Myers dealers are factory-trained in service procedures.

WATER SYSTEMS

-----

Send today for an illustrated folder covering the Myers complete line of pumps and water systems. Includes capacities, pressures, recommended installations and other valuable information. Mail coupon to: The F. E. Myers & Bro. Co., Dept. AB-8, Ashland, Ohio. In Canada: Dept. AB-8, 127 Frederick Street, Kitcheser, Outries.

-
Des .
51.0

Kitchener, Ontario.

Street. City\_









## NAMES that help make SALES

Certainly, today's homes must be equipped with modern appliances. More importantly, though, these appliances should carry the selling power of name plates that stand high in the experience of home buyers.

When you point to the Emerson-Electric name plate on kitchen ventilators and attic fans, you are pointing the way to an easier sale. For here's a name that the public has long accepted as the outward sign of inward quality. It's a name that has meant first in fans for more than 60 years of demonstrated, long-lasting satisfaction. Use the Emerson-Electric name to help you make sales!

There's a built-to-last Emerson-Electric unit for every home use.

Send for Ventilating and Attic Fan Bulletin No. 1011. THE EMERSON ELECTRIC MFG. CO., ST. LOUIS 21, MISSOURI.



easily installed in brick, masony or frame wells. Blends with modern kitchen nquipment.



Ventiletor for Ceiling Installation, Cun be supplied with or without sleeve and outside grille.



Emerten-Bestric Affic Fons— Build cool summer comfort right into every home, iscaeomically, five blade sizes, 24" to 48".

#### Emerson-Electric

of St. Louis



#### BUILDER

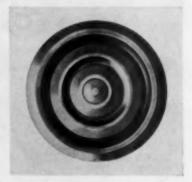
#### **NEW PRODUCTS**



#### Studebaker trucks for materials hauling

Available in the new line of Studebaker trucks are models in the 1/2-ton, 3/4-ton, 1-ton, 11/2-ton and 2-ton classes, with factory delivery prices ranging from \$1,533 for 1/2-ton pickup to \$2,570 for 2-ton chassis cab. These models offer a choice of 6-cylinder or 8-cylinder engines. Features that make the 1/2-ton and 34-ton models especially suitable for construction and materials hauling include double wall body strength, allmetal ribbed floors, steel door panels, a hill-holder that prevents roll-back on hills, variable ratio steering, and low over-all height. Studebaker Truck Department, Studebaker-Packard Corp., Dept. AB, South Bend 27, Ind.

Circle No. 821 on coupon, page 172



#### Adjustable circular diffusers

Agitair circular diffusers may now be purchased as adjustable units, as well as non-adjustable. The adjustable units have built-in segmentized air controllers which produce any angle of air discharge from above horizontal to vertical. Four 90-degree segments, independently adjustable, permit horizontal blows from one segment, vertical from a second, 45 degrees downward from third and 20 degrees from a fourth. List Price: from \$19, according to size. Distributed through manufacturer's agents. Four to six weeks delivery. Air Devices Inc., Dept. AB, Attn. T. A. Hughes, 185 Madison Ave., New York 16, N. Y.

Circle No. 822 on coupon, page 172

AMERICAN BUILDER

## selected again!

FOR ANOTHER GREAT BUILDING PROMOTION

## HOUSE & GARDEN 1955 House of Ideas

Fabrow fashion window walls open new vistas in design for the year's most exciting housel Designer-builder Richard Pollman chooses beautiful Fabrow windows in natural wood to achieve

panoramic visibility unlimited ...

Big house ar little house, Fabrow flexible fenestration gives you the advanced contemporary look, lighter, brighter interiors at lower cost. Helps win top honors for your homes in all price levels.

abrow Lashion WINDOWS

flexible fenestration

WIRE PHONE ... WRITE...

IDEAS

ABROW MFG., INC. 7208 Douglas Road, Toledo, Ohio Call NL. 9391



meadow Community, Pikesville, Md. In all, 120 homes will be built here on a 72 acre area. Each home will have approximately 42 squares of Flintkote Tapered Strip Shingles. Houses sell from \$33,000 to \$45,000. Korb Roofers, Inc., of Maryland are the Roofing Contractors.

## "Flintkote Roofing helps sell the house,"

says Mr. Gordon Sugar, designer and builder of the beautiful LONGMEADOW Development

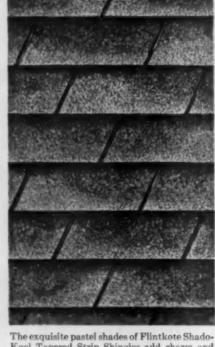
"Today roof color is very important in selling a modern type ranch house," explained Mr. Sugar. "For the large roof area is one of the first things a prospect sees.

"So we decided to really dress the roofs of our Longmeadow Development. To make a wonderful first impression! And to do this we selected Flintkote Tapered Strip Shingles. In those beautiful light pastel colors.

"As for the long-lasting protection! Flintkote Shingles have always been well known for that, too!"

Designers, architects and builders in every section of the country evidently agree with Mr. Sugar. For the trend to Flintkote roofing is even more pronounced than ever.

Use Flintkote roofing on your own new houses, You'll sell them faster . . . therefore, more profitably. And you'll insure your reputation for quality.



Kool Tapered Strip Shingles add charm and character to a house.

Flintkote Tapers are 25% to 33% thicker at exposed areas than ordinary shingles. They are constructed to lie flat for better protection.



THE FLINTKOTE COMPANY, Building Materials Division, 30 Rockefeller Plaza, New York 20, N. Y.



#### BUILDER

#### **NEW PRODUCTS**



#### Accordion door has many new features

This accordion folding door has positive control on lead-post that allows for fast, easy accurate adjustment on the lead-post position. It has a new post carrier to withstand any shock or sudden blows without danger of cracking or breaking. It also has intermediate carriers, positioning clips (2 clips per door), aluminum-extruded track, recessed post and anchor hinge brackets, chrome satin finish hardware, new fabrics with no exposed stitching. The Curtition Co., Dept. AB, 2227 Sawtelle Blvd., Los Angeles 64, Calif.

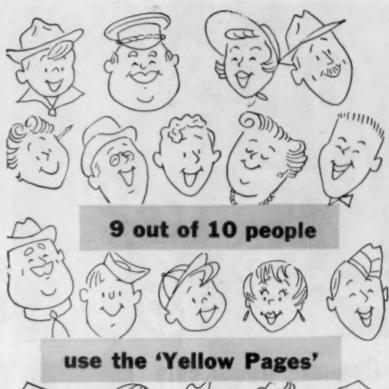
Circle No. 823 on coupon, page 172



#### Drinking fountains now available in colors

Universal-Rundle's new line of drinking fountains features a choice of five colors. Included in the line are facemounted fountains, semi-recessed wall fountains, a twin-stream fountain, a bracket fountain and an octagonal pedestal fountain. The model shown above (model 9803) is typical of the new line. Suggested consumer price of No. 9803: \$48.40 for white, \$61.05 for color. Available through normal plumbing fixture channels. Universal-Rundle Corp., Dept. AB, Attn. W. A. Shaffer, P. O. Box 960, New Castle, Pa.

Circle No. 824 on coupon, page 172





#### when they're ready to buy!



The
'Yellow Pages'
Where Prospects
Find You Fast

Such usage of the 'Yellow Pages' in the telephone directory makes them a chief source of buying information in homes, offices and factories all over the community.

So, when you advertise in the 'Yellow Pages' you're putting information about your business where it will do you the most good — right where prospects look when they need a builder.

If your business could be better, let the 'Yellow Pages' help you make it better.

Why not take a closer look now at the "Yellow Pages" for promoting your business? Call your local Telephone Business Office for the Classified Directory representative. He'll be glad to help.





## One-man trowel cuts finishing cost in half

This handy little power trowel gets around pipes and into tough corners. It works fast and is a breeze to handle.

It's a one-man tool. Only 70 pounds in weight and 24 inches across, you can carry it anywhere, through doors and down the stairs, even haul it in your car.

But it's no toy. The Master Midget does a professional job faster and easier than several men on their knees. Users say it cuts their costs in half.

You're an expert with it in 15 minutes, can make float, sweat, smooth or hard-trowel finishes on slabs, sidewalks, basements, porches or driveways. No changing blades either . . . one set does all the work.

The Midget is low cost, much less than big power trowels. That's why one of our customers told us, "We paid for it on four basement jobs."

Want a folder with specifications, prices, action pictures? The coupon will bring it. You'll like this tool. Write today.



One man can handle



Goes right through door

Lightweight—anly 70 lbs., 24 inches across \* Swept back blades for skilled sweep finish \* Blade edjustment for float, sweet, smooth, or hard finish \* Telescoping handle for easy carrying in our \* Briggs & Stratten engine — dependable 1.6 bp gas engine.

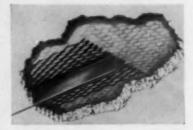
## MASTER

MASTER VIBRATOR COMPANY • 447 STANLEY AVE. • DAYTON 1, OHIO PLEASE SEND FOLDER "Master Midget Power Trowel" showing action pictures, specifications, prices.

	The state of the s
NAME	
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STREET	***************************************

#### BUILDER

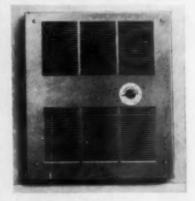
#### **NEW PRODUCTS**



#### Expansion joint reduces plaster cracking

The ground of the joint, which expands and contracts with the movement of plaster or stucco, relieves the stresses and strains that are among the common causes of plaster cracking. The expansion joint also provides the work stop usually required for acoustical plastering. Made of 26-gauge galvanized steel, it is available in 10-foot lengths, with either ½- or ½-inch grounds. Penn Metal Co., Inc., Dept. AB, Attn. Hugh Galaher, 205 East 42nd St., New York 17, N. Y.

Circle No. 825 on coupon, page 172



#### Air conditioning from a recessed wall unit

The Percoflash recessed unit air conditioner is an individual room unit connected to a central system using forced water for heating and cooling. Percoflash has a manual unit speed control for individual room temperatures. The units are each 173/4x14x43/4 inches and can be installed vertically flush to the wall between studs. All piping is concealed. These units filter air as well as heat and cool. The system can be installed on two-pipe balanced reverse systems, single or multiloop monoflow systems, single or multi-manifold parallel systems. Westcott-Alexander, Inc., Percoflash RU Div., Dept. AB, Attn. C. Z. Alexander, Park Ave., Madison,

Circle No. 826 on coupon, page 172

AMERICAN BUILDER



Paneling can be bonded directly to studding or to furring strips applied over existing walls (as shown.) Where planks or squares will be used, furring strips are applied horizontally.



Apply Rollite to the furring strips and to the corresponding areas on the back of the panels. Do not coat the first 1/4" along the edge which will be used to swing the panel into place.



First panel is positioned by sliding one edge into place along nails driven at a predetermined joint line. Following panels are positioned by butting the edge with the uncemented margin of the preceding panel, and swinging into place.

# Install Wall Paneling WITHOUT NAILS Using Roltite Cement

It's Easier, Faster, Cheaper and Stronger Than Conventional Methods

- No Nails or Clips to Fool With
- No Nail Holes to Fill
- No Previous Experience Required
- A Real Profit Builder on New Construction or Remodeling
- Works with Prefinished or Unfinished Panels, Squares or Planks and with many other materials



Bond is completed by tapping over the areas of contact with a hammer and a small block of wood. Bonding is immediate upon contact no sustained pressure is required.



Molding or trim may be installed by bonding it to the paneling with Roltite. Excess Roltite, when dry, can be rubbed off the face of the panel with the fingers.



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GROVE CITY, OHIO

Convenient warehouse locations in Oakland, Cal., Grove City, Ohio and Elizabeth, N. J.

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Please send me my free copy of your illustrated folder on bow to install wall paneling with Roltite Cement.

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City
State



#### shower doors & tub enclosures sell houses

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The only foldaway\* tub enclosure made \_\_guaranteed
unbreakale. Completely adustable for easy installation.
"For easy tub cleaning and
bathing children.
Pat. 2099827

SHOWER DOORS
The finest stall shower doors made Sturdy aluminum frame. Semi-obscure glass.
At NEW LOW BUILDER



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The real price glass tub
enclosure of the year! Complete package for easy installation. Investigate this
price and be amazed!

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Amarican Chance Door Co Inc

Canadian Representation - Ridgewood Service Corporation, 6819 Decario Blvd., Montreal

#### BUILDER

#### **NEW PRODUCTS**



#### Garage door panels are guaranteed

Raynor panel doors are now being offered to buyers with Ray-Lux panels that carry a lifetime guarantee against checking, delamination, or splitting due to natural causes. These are laminated quarter-inch thick panels. All Raynor quality doors, both residential and commercial, are available in Ray-Lux. Raynor Manufacturing Co., Dept. AB, Attn. J. M. Watson, Dixon, Ill.

Circle No. 827 on coupon, page 172

#### Plastic tile has satin finish

"Glo-Sheen" is the name of a new plastic wall tile that has a muted satin-type finish differing from the high-gloss finish of conventional plastic tiles. The tile is 44x444 inches in size. Also available is a bull nose cap 246x44 inches, and an outside corner. Glo-Sheen colors are mainly solid pastels, but many contrasting hues are included for decorator use. Artcrest Plastics Co., Inc., Dept. AB, 255 W. 79th St., Chicago, Ill.

Circle No. 828 en coupen, page 172



#### Custom-made cabinets in birch and knotty pine

Wood kitchen cabinets are available in either birch or knotty pine, and in a wide selection of colors. Cabinets are also available in Wood-Metal's exclusive Colonial or Contemporary design. All of this manufacturer's cabinets are custom made. Shipping requires from five to six weeks. Wood-Metal Industries, Inc., Dept. AB. Attn. Richard E. Nellis Jr., Kreamer, Snyder County, Pa.

Circle No. 829 an coupon, page 172



## reach for the big plus that only G-E home heating and cooling gives you

General Electric has spent millions of advertising dollars to convince folks that the product displaying this monogram is tops in value and performance. In turn, these men and women have spent billions at the consumer level because they believed in G.E.'s superiority. What's that got to do with the building business? Plenty! You cash in on this tremendous backlog of pre-selling when you make sure that the G-E monogram is on the home heating and cooling equipment installed in your homes.

Prospects are convinced you're giving them more for their money when it's draft-free G-E Air Wall\* System of home heating and cooling. They expect—and get—greater comfort and convenience. You can expect—and get—more sales in less time than ever. But talk to a man who knows. He's your G-E dealer. Call him today. He's listed in the Yellow Pages of your phone book.

Home Heating & Cooling Dept., Bloomfield, N. J.

Progress Is Our Most Important Product

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\*REG. TRADEMARK OF GENERAL ELECTRIC CO.

## Pollman selects Insulite for fabulous "House of



HOUSE & GARDEN'S 1955 "House of Ideas," Birmingham, Mich. Designer-builder: Richard B. Pollman, Richard B. Pollman Building Co., Detroit, Mich. Architects: Irving Palmquist & Clifford Wright, Detroit, Mich.

Build better and save with

### Roof Deck Ideas"



Money-saving Insulite Roof Deck is just as at home in the 1955 "House of Ideas" as it is in an economy 3-bedroom rambler.

Designed to meet the highest structural and decorating standards, Insulite Roof Deck still returns an \$80 to \$300 saving per thousand square feet of surface. It reduces building costs, yet adds a touch of quality to any home as these photographs of Richard Pollman's "House of Ideas" clearly demonstrate.

## Here's how Insulite Roof Deck can help you build better and save:

Cuts application time as much as 45%. Only one material to handle. New Insulite Roof Deck eliminates need for separate roof boards, insulation, lath and plaster and ceiling finishing. Roof Deck can save 12 man-hours per 1,000 sq. ft. of surface compared with 2"x6" D&M roof sheathing.

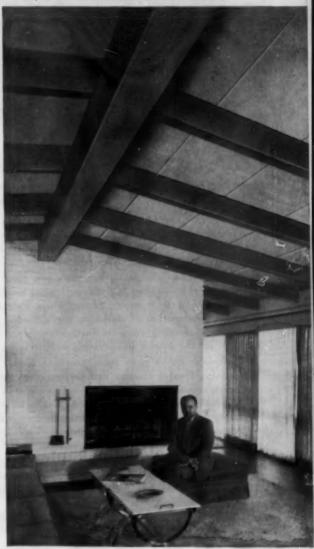
It's insulation with vapor barrier. No need for other insulation. Two-inch Roof Deck is comparable to 2" wood deck plus I" fiberboard insulation and meets heat loss requirements for roof and ceiling construction. Exclusive built-in vapor barrier protects against condensation within the unit.

Builds finished ceiling. The underside of Roof Deck is factory-finished in white. Lay Roof Deck over prefinished beams and ceiling is done. No need to plaster, paint, stain or wax. Available in 2'x8' units, 1½'', 2" or 3" thick with or without exclusive vapor barrier.

Send for complete information new. Actual onthe-job pictures and construction details show how to use new Insulite Roof Deck to build better for less. Write Insulite, Minneapolis 2, Minn.



BELOW: Richard Pollman, designer-builder of HOUSE & GARDEN'S 1955 "House of Ideas."



Insulite

Made of hardy Northern wood

INSULITE DIVISION—Minnesota and Ontario Paper Company, Minneapolis 2, Minnesota





## The Sherman Front End Loader Gives You "REACH YOU CAN USE!"

The "secret" is proper location of the lift frame pivot point. Sherman keeps the bucket in close at grade level for better maneuverability and traction . . . yet extends it to maximum distance from the tractor at loading and intermediate heights for extra loading reach.

This Sherman design feature gives you more usable reach than any comparable machine! It gives you loading height . . . a full 10'10". And it loads to the front end of an 8' truck body from the rear. This practical combination of maximum useful loading height plus maximum useful loading reach is further combined with a "balanced design" for the utmost in operating stability.

Sherman's husky main frame transmits loads to the tractor rear axle, giving greater traction and performance. Twin heavy duty tilt cylinders crowd buckets or attachments right in to do a real job on excavating, loading, bulldozing and a score of other jobs. All wear parts are heavy duty . . . designed to stand up longer with minimum maintenance. Two models are available . . . up to 2500 pounds bucket capacity, 4500 pounds breakaway capacity.

The Sherman Front End Loader is economical, easily installed, safe and easy to operate . . . sold and serviced by your local Ford Tractor dealer. Ask him for an on-the-job demonstration today . . . or write for Bulletin No. 717.



<sup>o</sup>Manufactured Exclusively for Sherman Products, inc. by Johnson Hydraulic Equipment Co Minneapolis, Minn.

1955, Sherman Products, Inc.

#### **CATALOGS**

WESTERN RED CEDAR SIDING—"Interesting New Uses for Western Red Cedar Siding" is a 4-page brochure describing how this siding can be used economically for interior walls and ceilings, garage doors, fences and patterns for gable ends and exterior walls. Western Red Cedar Lumber Assoc., Dept. AB, 4403 White-Henry-Stuard Bldg., Seattle I, Wash.

Circle No. 830 on coupon, page 172

FIBERGLAS AWNINGS, CANOPIES

—A catalog sheet describing and illustrating Lascolite Shiplap Fiberglas panels for awnings and canopies is now available from Lynch Asbestos Co., Dept. AB, 2939 So. Sunol Drive, Los Angeles 23, Calif.

Circle No. 831 on coupon, page 172

VERMICULITE ACOUSTICAL PLAS-TIC—"The Silent Treatment" is a comprehensive new booklet covering vermiculite acoustical plastic and its application. The booklet has a table of physical data, standard specifications for manual and machine application, and sketches of two constructions granted 4.5 sur fire ratings. Vermiculite Institute, Liept. AB, 208 So. La Salle St., Chicago 4, Ill.

Circle No. 832 on coupon, page 172

SECTIONAL STEEL SCAFFOLDING
—A 12-page bulletin describing and illustrating the many uses of sectional
steel scaffolding by general contractors
and subcontractors. On-the-job photos
show how "Trouble Saver" sectional
steel scaffolding provides safety, efficiency and economy for all types of
construction. Ask for Bulletin PSS-34.
The Patent Scaffolding Co., Inc., Dept.
AB, 38-21 12th Street, Long Island
City 1, N. Y.

Circle No. 833 on coupon, page 172

STEEL GARAGE DOORS—Much useful information about steel garage doors, with sketches and an informative section headed "How To Build Garage Door Openings," is featured in this folder. Strand Garage Door Division, Detroit Steel Products Co., Dept. AB, 3101 Griffin St., Detroit 11, Mich.

Circle No. 834 en coupon, page 172

ELECTRONIC CONTROLS REFER-ENCE MANUAL—A reference guide on electronic controls for heating, ventilating and air conditioning describes available electronic equipment and components, typical system specifications and connection diagrams. Data sheets on control panels are included for a variety of building installations. Minneapolis-Honeywell Regulator Company, Dept. AB, Minneapolis 8, Minn.

Circle No. 835 an coupon, page 172

STEEL "JUNIOR BEAMS"—A 20page booklet describing the uses of Jones & Laughlin Steel Corporation's light structurals, "Junior Beams," contains pictures showing how these beams are adapted to floor and roof design. Jones & Laughlin Steel Corporation, Dept. AB, 3 Gateway Center, Pittsburgh 30, Pa.

Circle No. 836 on coupon, page 172

ROOFER'S INSULATING GUIDE—A handy pocket-size guide printed on a 3½ x 5½-inch heavy, varnished card, gives the resistance and U values of common roof construction, both uninsulated and insulated with various thicknesses of Foamglas cellular glass insulation. On the reverse side is a table showing permeability of various roofing materials. Pittsburgh Corning Corp., Dept. AB, One Gateway Center, Pittsburgh 22, Pa.

Circle No. 837 on coupon, page 172

CATALOG OF HOUSES—A 28-page, 4-color catalog for 1955. Of the 23 house models shown, many in color and all with detailed floor plans, four are new—The Admiral Contemporary 1½-story, two 3-bedroom 2-story homes, and a split-level model. Single copies may be obtained from Admiral Homes, Inc., Dept. AB, 178 Provost Road, Pittsburgh 27. Pa.

Circle No. 838 on coupen, page 172

AIR FILTER—A 4-page booklet describes the home unit called "Automatic Housekeeper." This air filter works like a magnet by electrically capturing all air-borne particles before they have a chance to penetrate into the living areas of the house. The booklet includes dimensional details of the different models. Trion Inc., Dept. AB, 1000 Island Ave., McKees Rocks, Pa.

Circle No. 839 on coupen, page 172

SHOWER DOORS—A 3-color, 28-page catalog describing the complete and entire Permalume line of bathing enclosures is now available giving complete specifications and home application for each type of shower door, tubenclosure and shower stall. Also has a separate section on custom-designed enclosures. Shower Door Company of America, Dept. AB, 1301 Chatahoochee Ave., N.W., Atlanta, Ga.

Circle No. 840 on coupen, page 172

BULLGRADER AND BULLDOZER BLADES—International hydraulic bull-grader and bulldozer blades matched to International T-6, TD-6, TD-9, TD-14A and TD-18A crawlers are described in a 24-page catalog, just published. Full specifications and pictures of these items on the job are presented. Consumer Relations Department, International Harvester Company, Dept. AB, 180 N. Michigan, Chicago 1, Ill.

Circle No. 841 on coupon, page 172



#### "Our Sherman Power Diggers Are Easy to Handle and Maneuver in Tight Places"

One of the two Sherman Power Diggers owned by I. & M. Contracting Co., Bronx, New York, is shown on a trenching job for a public utility company in Long Island City.

Mr. Elio Mazella, co-owner of the contracting firm states: "Sherman Power Diggers are exceptionally good. They are easy to handle and maneuver in tight places. In comparison with former excavating methods, these diggers save us at least 70 per cent."

Sherman's speed, maneuverability and easy operation appeal to custom operators, contractors, utility companies, municipalities . . . everyone who wants the savings of mechanized excavating. Even on the smallest jobs the Sherman is practical, since it releases heavier equipment for bigger jobs . . . yet it digs in a fraction of the time and cost of manual labor.

Use the Sherman Power Digger as deep as 10 feet below ground . . . in mud, hardpan, shale, oiled roads, blacktop and stony ground. Initial cost is surprisingly low, and maintenance is simple and inexpensive. Ask your Ford Tractor dealer for an on-the-job demonstration, or write today for Bulletin No. 718.

\*Designed, Engineered and Manufactured Jointly by Sherman Products, Inc., Royal Oals, Michigan, Wain-Ray Corperation, Hubbardston, Mass.

Potent No. 2-303-852 Other Potents Pending @ 1955 Sharmon Products, Inc. PRODUCTS, INC.
ROYAL OAK, MICHIGAN
POWER DIGGERS\* FRONT END LOADERS - FORK LIFTS



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HERE IS EVERYTHING YOU NEED to know to "take off" a bill of materials from set of plans and specifica-tions for a frame house. Saves you time figuring jobs, protects you against oversights or mistakes that waste materials and cost money. Nothing complicated—just use simple arithmetic to do house carpentry estimating with this easy-to-use ready reference handbook.

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Material. Framing. Exterior Finish. Hardware. Building Information. Estimating Short Cuts. Labor Hours per Unit of Work. Carpentry Mensuration. Mathematical Reference Tables. Stair Estimating. How to Plan a House.

1950. 5th Ed. 304 p. 123 illus. 60 tables. 5x8. \$3.75



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Please send me a capy of Simplified Carpentry Estimating. If after 5 days trial 1 am not fully satisfied, I'll return it and owe nothing. Otherwise I'll keep the book and send \$3.75 plus a few cents for postage and handling in full payment.

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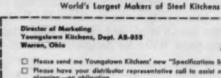
Morton Macht, president, The Welsh Construction Co., Baltimore, Maryland says . . .

## "Youngstown Kitchens are delivered to our jobs when we need them!"

"We have never had any of our jobs tied up by lack of kitchen equipment. We are featuring colored kitchens and since it would be impossible for us to warehouse the large quantities we use in the various colors, you can see that it is important that we have immediate delivery when needed. This has long been obtained from the local Youngstown Kitchens distributor."

#### HOW YOUNGSTOWN KITCHENS CAN HELP YOU

- 87 strategically located warehouses—job-timed delivery of all standard units in color or white
- Mass-production savings—plus savings on installation of completely prefabricated units
- Color at no extra cost-Star White, Dawn Yellow, Meridian Blue, Sunset Copper
- National advertising boosts builders featuring Youngstown Kitchens during National Home Week



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AUGUST 1955

195

#### EASY TO INSTALL...EASY TO SELL!



Efficiency packed into a compact design, makes the new Richmond Pilgrim a comer among oil-fired boilers. Really versatile, this unit can be used for steam or hot water systems. The wet base design extracts maximum heat from the combustion chamber, permits installation on combustible floors. It is available with handsome extended or flush jacket "Duradized" to resist rust and corrosion, and with or without tankless heater for domestic hot water.

Ideally suited for small space installations in basements, utility rooms or closets, the Richmond Pilgrim has an important place in your future installations. Write for complete information.

Not IBR Ratings

For Hot Water: 5 sizes - 445 to 1080 sq. ft. installed radiation 67 to 162 MBH/HR.

For Steam: 5 sizes - 240 to 600 sq. ft. installed radiation 58 to 144 MBH/HR.

Look to RICHMOND for a complete line - automatic heating -central summer cooling units.



RICHMOND RICHMOND

16 Pearl Street, Metuchen, N. J. AN AFFILIATE OF REYNOLDS METALS COMPANY

#### **Build with the best - CECO Metal Windows**



#### What's new in pools?

#### Plastics help cut costs of pool construction

Swimming pool construction can be simplified by the use of a plastic material as a water-resistant lining for the pool. The method works both for pool walls of concrete block and reinforced concrete or Granite pools. Krene plastic pool liners are available from Bilnor Corp., Brooklyn, N. Y., in three sizes: 12x27 feet (\$325); 16x32 (\$570); 20x40 (\$850).

Award Pools of America, Beverly Hills, California, use a one-piece Boltaflex plastic made of 22-gauge laminated material as a pool liner. Award pools can cost as little as \$1,695, are available in three standard sizes: 12x27 feet, 16x32 feet and 20x40 feet.

Paddock Pool Equipment Company of Los Angeles is offering a reinforced Fiberglas pool made in four sections which can be installed in about four days. Priced at around \$2,000, the package includes pressure filter system, color trim for top of pool, gasket material, bolts and other necessary equipment.



Excavation is leveled off at the maximum depth of the plastic liner and back-filled to correct slope after the walls are built. Two by 10-in, boards bolted to top of wall anchor liner

#### LINING THE POOL WITH PLASTIC



Before liner is fitted to the pool, loose earth is tamped and sloped gradually. Concrete floor is not required. Underwater lighting fixtures are in boxes below ground level



Finished pool has planks laid around pool's edge to hold liner in place on tops of walls. Another way to secure edge of plastic liner is to cement a coping over pool edge



The four sections of reinforced Fiberglas are nested for shipment

#### PADDOCK'S CINDERELLA POOL IS OF FIBERGLAS



Exeavation is graded accurately to conform to floor of pool. "A" frame supports pool as assembled over excavation. Plastic pipe connections are made and pool is lowered into hole



Cinderella pool is 30 by 15 ft. Maximum depth is 5 ft., minimum, 3 ft.



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## Rule that FHA can decide with whom it does business may lead to abuses

By John F. McCarthy Attorney at Law

\*



In a recent decision, the United States District Court for the District of Columbia, defined the Federal Housing Administration's right to refuse to insure mortgages where builders previously engaged in alleged irregular practices. FHA officials regard the decision as one of particular importance and significance. The opinion was handed down by Judge Burnita S. Matthews in the case of Harry K. Madway et al vs. Norman P. Mason, Commissioner, Federal Housing Administration, No. 639-55.

The plaintiffs were builders in Wayne, Pennsylvania. They had applied to a lending institution for mortgage loans, the proceeds of which were to be used to finance the construction of certain dwellings. The lending institution in turn had applied to FHA for mortgage insurance under Section 203 of the National Housing Act. The FHA had rejected the applications. It found nothing wrong with the present project, but based its action solely on what it termed previous unsatisfactory business experience with the plaintiffs.

This experience involved the plaintiffs' "mortgaging out" on certain projects, the construction loans for which had been insured under Section 608 of the National Housing Act. More specifically involved were two apartment house projects, the mortgage loans on which exceeded construction costs by more than \$400,000. The excess amounts received had enabled large loans to be made to stockholders and directors.

#### Required hearing not held

Plaintiffs complained that FHA was "blacklisting" them without complying with the requirements therefor as set forth in Section 512 of the National Housing Act. That section requires a notice and hearing for the builder charged with misconduct. These had not been provided for plaintiffs. That section further requires determinations of certain types of misconduct by the builder. FHA did not contend that plaintiffs were guilty of any offense justifying blacklisting. It merely took the position that it had the absolute discretion to determine with whom it did business and for whom it would insure mortgages.

The court sustained FHA's position and denied the injunction which plaintiffs sought. It found that under the National Housing Act, the commissioner had a basic authority and discretion in gauging the underwriting characteristics of a builder, and thus in determining to whom the agency would grant loans. It further found that the powers vested in the commissioner under Section 512 on "blacklisting" were not intended to impair or interfere with this discretion of the commissioner implied from other sections of the act.

#### Erroneous basis for decision

It is submitted that Judge Matthews' decision rests upon an erroneous basis. The FHA is a public
agency and its commissioner is a
public official. Its benefits should
be available to all. The decision to
withhold those benefits should not
rest in the uncontrolled authority
and discretion of the commissioner.
It should not be made without notice
and hearing, and without reference
to some recognized standards for
guidance.

If this is not true, our fundamental concepts of what constitutes due process of law are violated and grave abuses may arise.



K&M APAC SHEETS GO UP EASILY, furnish a smart, modern appearance. In the picture above, they've been applied on the sidewalls of the Columbia Lumber & Manufacturing

Company, Columbia, South Carolina. In keeping with the traditional color scheme of this K&M distributor, the sheets have been painted yellow—the openings trimmed in blue.

#### For a K&M distributor's building— K&M APAC sheets, of course!

When a man uses the product he sells, you know he's convinced of its merits. And in the picture above, you see K&M APAC Asbestos-Cement Sheets applied on the sidewalls of our Columbia, South Carolina, distributor's building. Considering all the building materials this distributor can choose from, we feel that his selection of K&M APAC is high praise for this product.

And here are some of the features that make K&M APAC sheets so well thought of by those who use them as well as by those who sell them:

Never need paint! The smooth, good-looking APAC surface takes decorative colors well, but never requires any protective painting.

Won't burn or rot! Made of asbestos and cement, K&M APAC sheets resist fire, won't corrode. And vermin can't harm them.

Weather-resistant! Extremes of weather-rain, sleet or snow—do not harm these sheets. They're used outside as well as inside.

Widely used! Versatile K&M APAC sheets are chosen for office, factory, home, and farm—in a thousand and one uses. For more information on them, check Sweet's Light Construction File and Sweet's Architectural File. Your K&M distributor also has complete data. Write directly to us for his name.

#### **KEASBEY & MATTISON**

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#### Jaeger pays a bonus of 12 to 15 yards

With the automatic shaker hopper on the Jaeger 31/2S Auto-Loader you can load and measure while you mix, then power-shake the new batch into the drum quick as a flash. It means 12 to 15 more yds. per day - the fastest mixer of its size. The huskiest, too, with machined steel drum tracks on ball bearing car-wheel rollers. Send for Catalog SM-2.



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KARYALL BODY, INC. 8221 Clinton Road Cleveland 9, Department A



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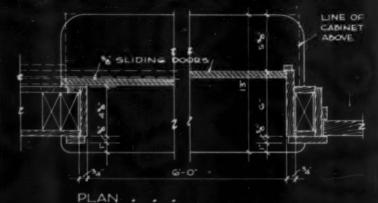
The VULCAN Radiator Company 775 Capital Avenue . Hartford 6, Conn.

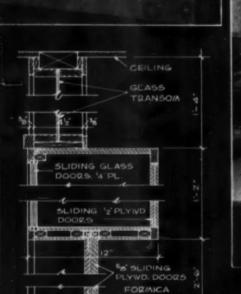
#### New pass-thru is a complete unit from

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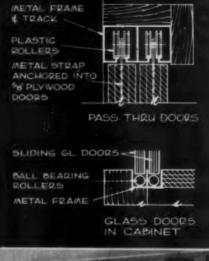
#### NO. D-130 PASS-THRU WINDOW .

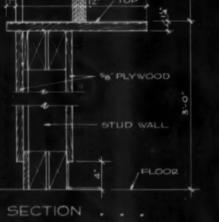
















#### floor to ceiling

This pass-thru designed by Norris Verger actually has three functions: as an opening at counter height; as a glassware storage area above, to the height of the door; and as a fixed glass transom to ceiling line above the cupboard. This transom extends horizontally over the adjoining sliding door to the kitchen.

The plywood pass-thru doors are ingeniously arranged to slide past the jamb on one side of the opening only. As can be seen in the photograph of the interior of the kitchen, the jamb member on one side of the exterior wall cupboard has been increased in width to receive the two sliding doors of the pass-thru. In this manner they slide by the face of the cupboard back to the wall line.

The cupboard above the pass-thru, which is the same depth as the counter below, is divided into two sections. The part facing the dining area has glass sliding doors and the portion facing the kitchen is enclosed with plywood sliding doors.

Of interest is the careful manner in which details have been handled. For instance, the birch plywood panels below the counter line extend the thickness of the material in front of the base of the adjoining redwood paneling. In this manner the dark line of the redwood base neatly frames the pass-thru unit,

Another detail is the drop-leaf table that is placed directly in back of the pass thru counter on the kitchen side. The height of this table is fixed so that the end occurs at the mullion between the drawer and the cupboard of the below-counter wall unit. This permits the drawer and cupboard to be opened when the table is in position. The table is supported by legs which are folded when the top is dropped along the face of the wall below the pass-thru counter.

Detailed by K. Roderick O'Neal, A.I.A., Chicago, III.



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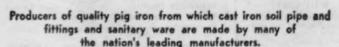
Permanent cast iron pipe and fittings are so structurally strong they can't be fractured by earth movement or the settlement of a new house or fill. They don't absorb moisture, bulge or disintegrate. And what's vitally important to every home owner who wants a truly lovely outdoor "living room"

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#### BUILDER

#### Important Considerations for Open Web Steel Joist Construction

Open web steel joist construction, as defined in the Standard Specifications of the Steel Joist Institute, is a particular assembly of steel joists and top slab or deck, designed for the purpose of developing the most efficient use of all component materials to produce a safe, economical and practical method of construction.

On the following pages are two of the most important factors to be considered when designing for the use of steel joists. The first plate gives consideration to the construction details while the second, on page 208, is used for estimating size requirements for a given span and load condition.

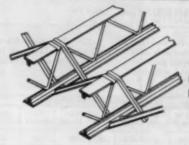
The maximum permissible spacing of the joists in this assembly is limited to 24 inches on centers in floors and 30 inches on centers in roofs only. At the maximum joist spacing of 24 inches for floors, ordinary concentrated loads can be safetly distributed on a 2 inch reinforced concrete slab; the centering material can be used effectively without excessive sagging; and a fire-resistant ceiling can be installed beneath the joists without resorting to the use of furring channels.

All open web steel joists are made in standard depths of 8, 10, 12, 14, 16, 18 and 20 inches and in lengths to accommodate all spans up to 40 feet. Institute-approved steel joists are completely fabricated in the shop with all manufacturers standardizing on a 21/2-inch deep bearing end. This 21/2-inch depth generally fits between two successive mortar joints and avoids interference with the brick layout. Then too, when supports are of the same level, the tops of all joists, regardless of depth of joists, lie in the same horizontal plane, providing level bearing surfaces for floors and roof decks.

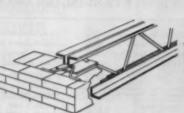
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#### Technical Guide

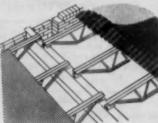
#### DETAILS FOR OPEN WEB STEEL JOIST CONSTRUCTION



Strut Bridging



End Wall Anchors



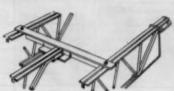
Centering



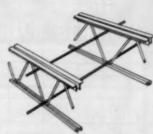
Sag Rods



Beam Anchors



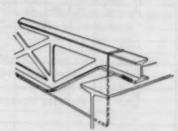
Header Construction



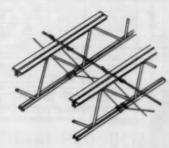
Horizontal Bridging



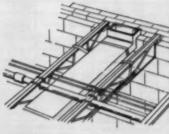
Side Wall Anchors



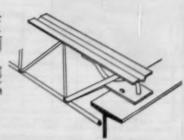
Welded Connection



Rod and Wire Bridging



Pipes and Ducts



Bolted Connections

Courtesy Steel Joist Institute

#### SAFE LOADS FOR OPEN WEB STANDARD AND NAILER STEEL JOISTS

The following table gives the total safe uniformly-distributed load-carrying capacities, in pounds per linear foot, of Open Web Steel Joists and Nailer Joists, adopted by the Steel Joist Institute. The weight of dead loads must in all cases be deducted

to determine the live load-carrying capacities of the joists. When Nailer Joists (those with suffix W) are used, they should not be spaced farther apart than the safe span of the wood deck or other material used over them.

	The profix letters "SI" should precede Joist Designati				_					ilw, m	3,62, 3,62W, etc.						
Solet Darignation fill	81W	82 82W	102 102W	103 103W	104 104W	123 123W	124 124W	126 126W	126 126W	145 148W	146 146W	147 147W	166 166W	167 67W	186 186W	187 187W	307 207W
Depth in Inches	8	8	10	10	10	12	12	12	12	14	14	14	16	16	10	18	20
Approximete Weights in Pounds per Linear Feet	3.5	4.0	4.0	4.75	5.75	5.0	5.75	7.0	8.0	7.0	8.0	10.0	8.5	10.0	9.0	10.5	10.5
lesisting Moment in Inch Kips	29.5	52.5	63.	82.	100.	92.	115.	142.	175.	156.	205.	246.	232.	281.	258.	310.	340.
Maximum End Reaction in Kips	1.60	1.90	1.90	1.95	2.20	2.20	2.30	2.50	2.70	2.90	3.10	3.40	3.20	3.60	3.60	3.80	3.90
Span in Feet			No.							-							
7	401																
8	307																
0	243																
10	197	350														-	
11	163	209															
12	137	243	292						1								
13	116	207	249														
14	100	179	214			313											
15	87	156	107	243		273											
16	77	137	164	214	260	240									100		
17			145	189	231	212	265										
10			130	169	206	189	237			321		-					
19			116	151	185	170	212	262		288		-					
20			105	137	167	153	192	237		260							
21						139	174	215		236							
22						127	150	196	241	215							
23						116	145	179	221	197	258						
24						106	133	164	203	181	237				295		
25										166	219	262	247		272		
30										154	202	243	229		251		
27	10									143	187	228	212	287	223		
20										133	174	209	197	239	217	264	
29												-	184	223	202	246	
30													172	208	100	230	252
31													161	195	177	215	236
32													151	183	166	202	221
33															186	190	208
34						1									147	179	196
38															139	169	185
36													1		131	159	175
37																	166
30																	157
30															200		149
40											1		1				142

Indicates Nominal Depth of Standard Steel Joists only. See Manufacturers' Catalog for Depths of Natier Steel Joists.
 † Approximate Weights per Linear Foot of Joists Includes accessories, but does not include wood natier strip.

Adopted by the Steel Joist Institute August 20, 1929 and Revised to September 16, 1952.

This Table in accordance with Simplified Practice Recommendation No. R94-53 of the Bureau of Standards, U. S. Dept. of Commerce.

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made of embossed aluminum, finished in brick red color with depressed off-white mortar lines. Weighs less than 100 lbs.! Can be installed in one man-hour! And look at these quality features.

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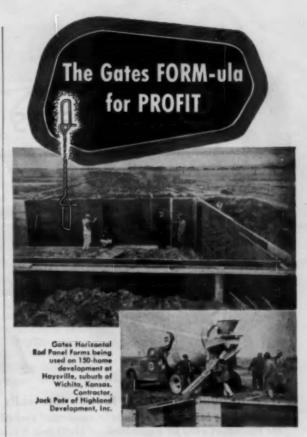
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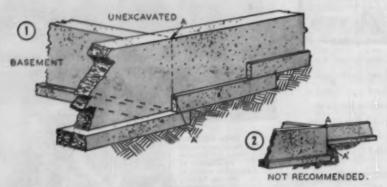
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	& SONS. INC

#### ask the EXPERTS about



#### How to build split-level foundation walls

What is the best method of building foundation walls for a split-level having a partial basement and an unexcavated section? I want to prevent cracking at the point where the foundation walls of the unexcavated section and the basement wall abut (A-A in sketch). The structure above this foundation is to be two floors and the over-all dimensions are 25x60 feet. Would there be any advantage in building with concrete blocks, or would it be better to build the walls of cast-in-place concrete walls?

C. J. L., Detroit, Mich.

Do not put any abrupt changes

#### Post and beam construction for an office building

We are contemplating the building of a new office building and show room and want to use entirely frame construction. The size of the building is to be 28x36 feet. The side elevations and rear elevation walls are to be 2x6's at 16 inches o. c. with solid 2x6 posts to support roof beams. The roof sheathing is to be applied directly over roof beams. Will this be sound construction?

B. G., Schomberg, Ontario, Canada

Some structural members that you mention you want to use are under-designed; also, some provision should be made for making a rigid connection between the roof beams and the posts. Some suggestions are shown in Fig. A that will improve the structural design.



You will notice that your 2x6 posts have been changed to 6x6 posts. The laminated beam has been changed to a 5½x20-inch beam. Posts and beams have been placed 6 feet o. c. Notice also that 2x6's about 3 feet long have been bolted

- Planning
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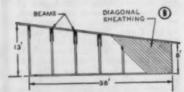
into any foundation wall without adequate preparation for them. During excavation of the basement, you will obviously disturb the soil underneath Part A<sup>1</sup> (see illustration number 2) and when you pour a foundation wall on the disturbed soil, the wall will settle unevenly. The result will be a crack in the concrete.

To avoid this, step the foundation as shown in illustration 1. The location, spacing and size of the reinforcement depends on the elevation of the surrounding earth.

Use poured concrete foundation walls rather than concrete blocks. Poured concrete gives a more uniform, steadier and all-around better foundation to your building.

George A. Kennedy, Structural Engineer

to either side of the post to tie post and beam together. Bracing between posts is recommended if sheathing



does not offer adequate bracing. In Fig. B you will notice an elevation of your proposed building without the use of diagonal bracing between the posts. This assumes that you use diagonal sheathing as shown and that this will give sufficient support.

K. Roderick O'Neal & Associates, Architectural Engineers, Chicago

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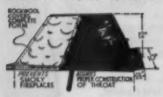
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SUPERIOR HI-FORM DAMPER MODEL "H"



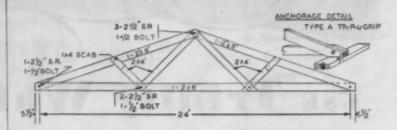
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#### ask the EXPERTS



#### Truss for a 24-foot span

I would like to use a W-truss with a 24-foot span which has the following loading values: snow, 20 pounds per square foot, horizontal projection; wind, 23 pounds per square foot; dead weight, 10.5 pounds per square foot horizontal projection; storage, 20 pounds per square foot. I am enclosing a truss which I think will do the job. Will you check it to see if it is right?

J. K., Albert Lea, Minn.

You will find that the illustration accompanying this answer describes the kind of truss you will need for the requirements you set forth in your letter. It is essentially like the one you sent with your letter, with a few changes. The truss illustrated is figured for a dead and live load on the roof of 35 pounds per square foot, dead load ceiling framing of 10 pounds per square foot. Place trussed rafters 2 feet on centers.

#### Formula for concrete

Can you tell me what formula should be used in mixing concrete for the foundation walls of a small home? I have heard conflicting theories about mixes and I want to be able to tell my builder what I want for a good foundation. How long should concrete be allowed to set once it has been poured?

R. K., New York, N. Y.

In proportioning concrete for foundation walls for a home, the amount of water used is of great importance. The amount of water per bag of cement determines, to a large degree, the durability, watertightness and strength of the finished concrete. In general, the less mixing water used, the better the quality of the concrete, so long as the mixture is plastic and workable.

In a job like foundation walls,

where the concrete must be strong and watertight, less mixing water is used than for most above-grade construction. Six gallons to a bag of cement is recommended. However. most sand contains some moisture which combines with cement. Therefore, allowance must be made for this and, if average wet sand is used, then five gallons of water per bag is sufficient.

Wall forms of newly placed concrete foundation walls can usually be stripped after four to seven days in winter or spring. In warm weather they can be removed after one or two days. The concrete should be kept damp during a curing period of 12 days after the forms are removed. Covering of burlap or canvas over the foundation walls can be kept moist by means of a garden hose.

Portland Cement Association

#### Moisture causes redwood to bleed

There is a brown sticky substance bleeding out of the redwood siding. The wall on which the redwood is applied is made up as follows: 2x4 studs, Temlock sheathing, 15-pound asphalt felt and redwood bevel siding; Rocklath and plaster are used on the inside. Where does the sticky syrup-like substance come from? How can we combat it?

R. B., Kankakee, Ill

Assuming kiln-dried siding is the subject of the problem, the only possible explanation for the bleeding of the redwood is that moisture is coming in from beneath the house or from within it. This vapor moisture has condensed on the inside of the siding, to be absorbed by the siding itself, and the result is the bleeding of the redwood.

(Continued on page 214)

# "ERECTION COST CUT ONE-THIRD with RILCO BEAMS"

Exterior view, Reelsville School, Reelsville, Indiana



Classrooms, Reelsville School

RILCO engineers will gladly work with you on the job. May we send you a free catalog or answer any questions—no obligation, of course.

Says Contractor

Here's what M. E. Rilenge of the M. E. Rilenge Construction Company of Terre Haute, Indiana, says about the Rilco Glued Laminated Structural Members used in this school:

"Rilco Laminated Beams were about one-third cheaper to install than the conventional steel structure. This is due to the fact that there was no welding for connections and we were able to erect them with the conventional stiff leg type of derrick; thus saving the cost of a crane. We are pleased with Rilco products and the ease with which they are installed."

You'll find job site erection is simple with Rilco. Unskilled labor can produce professional results in less time, at less cost, with pre-cut and drilled RILCO members.



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And their buying action continued in furniture, home furnishings and appliances long after the Festival closed.

There is no promotion that can match the Chicago Festival for sales results. Get ready now to cash in on the extra volume the 1955 Fall Festival can bring you. Let a Tribune representative work with you to get the most out of this top Chicago promotion this Fall. Write, wire, or phone while the matter is in your mind.

Chicago Tribune



Residence of J. C. Davidson, Manager, Application Engineering Department, Airtemp Division, Chrysler Corporation, Dayton, Ohio. Completely air conditioned with Airtemp equipment and Kno-Draft Overhead Air Diffusers.



Living room has two Kno-Draft Diffusers. Air distribution system and fan-coil unit are located in artic. The condensing unit is

Why Air Diffusers are making are making grilles obsolete

In the dining room and kitchen, Kno-Draft Air Diffusers with integral lighting fixtures are used. These are available in a variety of styles, and may also be adapted for dropped lights.

Unlike grilles, which merely "dump" warm or cool air into a room, letting it mix ad lib, Kno-Draft Overhead Air Diffusers are true air mixing devices. They do their job thoroughly, within inches of the diffuser and well above the living level.

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From the contractor's point of view, the superior advantages of Kno-Draft Air Diffusers mean added sales appeal and a chance to get away from straight price competition. And Kno-Draft jobs are easy to figure, easy to install.

You'll be interested in our special bulletin describing Kno-Draft Residential Air Diffusers-their advantages, method of selection, system layouts, installation details. Send for your copy today. Connor Engineering Corporation, Dept. I-85, Dunbury, Connecticut.



# ask the EXPERTS

(Continued from page 212)

One other possibility would be free moisture from rain or snow which has managed to get behind the siding at some point, or points, due to faulty construction.

The moisture problem is a special one in the case of redwood. The characteristic redwood coloring results from water-soluble extractives. Moisture with access to the wood tends to bring these extractives to the surface, generally resulting in dark spots or streaks. In extreme cases, a brown or reddish sticky substance may accumulate.

Make every attempt to find the source of the moisture, and correct this problem first before going to the expense of refinishing the redwood siding.

Edward Hines Lumber Co.

# Will a 4-inch concrete slab hold 10 people?

I plan to add a new portion to an existing house. I plan to build it of cement blocks with a reinforced concrete slab for a floor. My procedure is to pour concrete as a footing then use the cement blocks as walls. I will put a pier of cement blocks near the existing wall and place an I-beam across it to the outside wall. I also plan to use a pier in the center with another 1-beam across to the two outside walls. Then I plan to pour a 4-inch concrete slab for the floor. Will the 4-inch slab be strong enough to hold about 10 people, or a ton of weight? Do I need a heavier slab? The intention is to use the under side of this addition as a coldstorage room.

H. F. C., Brooklyn, N. Y.

Your layout of the proposed coldstorage area seems adequate. We suggest you use 8-inch heavyweight block for your foundation walls and fill the cores of the top course of masonry with concrete for greater bearing of your cast-in-place floor. We further suggest that you use 6-inch centers both ways. The slab using this reinforcement will be more than ample to carry the loads you anticipate. In addition to storage area you can also utilize this for a blast or bomb shelter.

Portland Cement Assn.

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Please send FREE Fabricating Bench design and the booklet— "How to Build TECO Trussed Rafters".

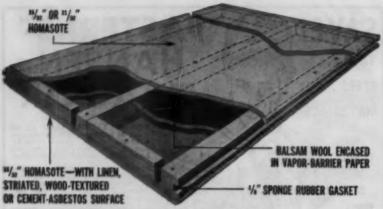
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ANNOUNCING

# WILSON AIR-COR ROOF DECKING

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No matter what the interior or exterior conditions—of climate, temperature or humidity—you need no longer have a condensation problem. The solution—as presented in Wilson Air-cor Roof Decking—is scientific, unique, yet amazingly simple. Two air channels, running the length of each 2' x 8' panel, insure continuous air circulation across the entire roof—automatically and in sufficient volume (1945 cubic inches per panel), to absorb all normal condensation. For extreme conditions, forced air could be used.

Use this scientifically engineered roof decking on flat or pitched roofs—and on any type of structure. Then apply built-up roofing, shingles, slate or metal, as your design requires. The panel is designed for rafter spacing up to 48" o.c.; nail holes are pre-drilled to your order.

The strength is there; the insulation value is there. (With built-up roofing and <sup>15</sup>/<sub>2</sub>" Homasote, the U factor is 0.15.) Here is new insurance on air-conditioning investments.

Each panel is made up of three 2" x 2" wood members, 12" o.c., horizontally. On one edge is a wood tongue; on the other a groove. Within the groove a sponge rubber gasket insures a tight seal. The top and bottom sheets are weather-proof Homasote. According to your specifications, the top sheet may be either 15%2" or 21/12" in thickness; the bottom sheet (which can serve as finished ceiling) may have a linen, a striated, a wood-textured or a cement-asbestos surface.

The top piece overlaps \( \frac{9}{16} \)" on the groove side, thus shutting our moisture (and also the asphalt of built-up roofing). The bottom piece has a 45° bevel on each side. This overlaps the wood members by \( \frac{1}{162} \)" to insure a tight joint between sections. Between the wood members—under the top piece—a barrier of \( \frac{9}{162} \)" Balsam Wool, completely encased in vapor-barrier paper, is glued. At each end of each panel two wood blocks—2" x 2" x 8"—provide for satisfactory nailing to rafters or joists. Panels are easily cut to any dimension (or supplied in special lengths, to order).

Sound-deadening puritions and sub-flearing. For interior, sound-deadening partitions, Wilson Air-cor Panels are supplied in 2', 3' and 4' widths and in heights up to 11' 2". The combination of Hornasote and Balsam Wool creates an unusually efficient sound-deadening barrier... For use in partition walls, the Hornasote surfaces are applied as panels beveled on both sides—and without overlap... For sound-deadening between floors, use the panels as sub-flooring; nail the finished flooring direct to the wood members of the panels.

Wiring—An additional advantage of the air cores is that electric wiring—whether conduit or cable type—may be passed across the roof, thus wiring the building from above. This is not only the most

economical method, but permits the placing of light fixtures wherever desired.

Our Engineering Service is available to work with you on any specific problems of roof decking, partitions or sub-flooring. Let us give you complete details and specifications. Kindly address your inquiry to Department H-7.





# **HOMASOTE COMPANY**

TRENTON 3, NEW JERSEY

# How strong should non-bearing walls be?

In the March American Builder, page 172, the article 15 Ways To Cut Building Costs" suggests 1x3 studs for non load-bearing partitions, Could you please give me information as to whether this would be practical using 16x48-inch gypsum lath on such a wall? I am assuming the wall is framed as is the typical 2x4 wall.

P. W., Ft. Lauderdale, Fla.

The sizes and spacings of studs in walls as developed through general construction practice have proved to be overly conservative. There are cases, however, when it may be desirable to obtain a more accurate design, in the interests of economy, in using smaller stud sizes, wider spacings, or unusual loads.

In load-bearing partitions, the safe loads on stud walls are based on the strength of the studs as columns under axial loads; i.e., vertical load applied in a plane through the center of the studs. Experience has indicated that lateral forces acting perpendicularly to the plane of the stud wall seldom give cause for special considerations, except in the case of unusual lateral forces, such as earthquakes and high winds.

In general, stiff wall coverings, such as sheathing, gypsum lath, plaster, etc., rigidly fastened to both sides of the studs, add considerable rigidity and in many instances strengthen a stud wall.

The lateral support of studs in the direction parallel to the stud wall depends greatly on the bridging, and the spacing between rows of bridging, placed between the vertical members. The maximum spacing between rows of stud bridging may be obtained by multiplying the length of the stud by the appropriate spacing factor.

For example, the spacing of bridging between 1x3 studs of 8-foot length should not be more than 29 inches. You can see from the above that non-load-bearing 1x3 studs at 16 inches o.e. properly bridged laterally and placed with the wider dimension of the stud at right angles to the plan of the wall, and both sides covered with 16x48 gypsum lath, would be entirely practical and satisfactory.

George A. Kennedy, Structural Engineer

AMERICAN BUILDER



# NEW TRESTLES WITH 9 HEIGHT ADJUSTMENTS



FOR FAST MASONRY CONSTRUCTION, mason contractor L. Hubbard of Euclid, Ohio, uses new "Trouble Saver" Putlog Trestles on a project for Joe Miller Homes Co. The new Putlog Trestles are 5'-long and provide nine height adjustments, ranging from 4' to 6'. Masons set each Putlog on the top course, then brick is laid over them. Putlogs are pulled out of the wall and adjusted to new height as the job progresses. When a pin is removed, the new Putlog Trestle swings down flat for easy storage or shipping.

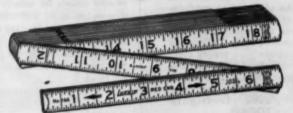
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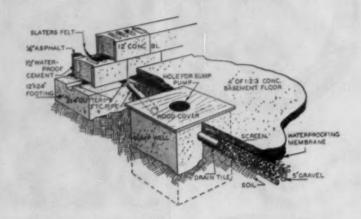
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# CONSOLIDATED GENERAL PRODUCTS, INC.

24th & Nicholson, Houston, Texas

# How to do it better

Ideas for the man on the job



## **Keeps concrete block foundations**

# dry with drains in footings

Here is a successful procedure for maintaining dry concrete block basement walls:

1. Pour 12x24-inch concrete footings for house.

2. Place 2x4's in center of wet concrete footing around entire perimeter, with short pieces either into basement area to sump pump well or outside to drain tile. On large spreading houses, we usually have a drain leading from each wall. On smaller houses we usually have two drains, one in the wall where a footing for steps and landing is tied in, and in the opposite wall. (Footings often rupture where they are tied into a wall, and allow water to enter the block.)

3. After the concrete has set, remove the 2x4's.

4. Lay first course of block foundation for house.

# Improved method for installing ceramic tile on metal cabinets

A better method of installing ceramic tile on metal cabinets has been developed by a committee of the Tile Council of America and the Associated Tile Contractors of Southern California, in cooperation with the Jensen Co., distributors of St. Charles cabinets in Los Angeles.

Following detailed study, the joint industry committee recommended (Continued on page 220)

5. Place precut slater's felt, almost as wide as the cells in the block, on this first course of block. This prevents mortar droppings from clogging up the gutter.

6. After parging the walls with two applications of waterproofing cement (2 parts clean bank sand and 1 part waterproofing cement) and allowing to dry, trowel about ½-inch trowel-grade mastic foundation coating up to the grade line.

7. Should any water get into the block foundation walls from any critical point or rupture, this gutter immediately directs the flow to the sump pump or outside to the drain tile and away by gravity. This prevents the accumulation of water and seepage through the joints into the baseguest.

Carl A. Gerkens, Baltimore, Md.



The "test" area was a new all-tile kitchen installed for Mercedes Bates, food consultant and president of the California Home Economies Ass'n.

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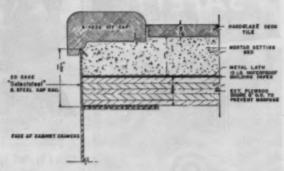
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# How to do it better

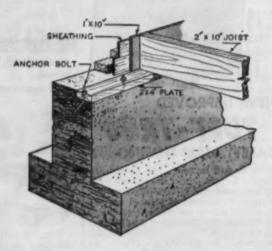
Ideas for the man on the job

(Continued from page 218)



An L-shaped stainless steel strip replaces the wooden strip used in the past and the specially cut surface bullnose apron that was costly and did not adhere rigidly

that an L-shaped stainless steel strip  $1\frac{1}{2} \times 2\frac{1}{2}$  inches with a crimp on the short side be used as facing for the outer edge of the plywood under the tile cap to give the job a finished appearance and added strength, and to prevent deterioration (chemicals in mortar have a tendency to peel paint and oxidize aluminum).



# Plate placed on foundation wall before concrete sets

By placing treated 2x4 plates in the top of the concrete foundation walls, as shown here, the time required to set the anchor bolts and align them is reduced. The bolts are set in the plate and in the concrete when the concrete is being poured to the tops of the forms.

Also, by using this method of placing foundation plates, a 1x10 can be used for boxing in the joist ends instead of using a 1x12 when the plates are placed and bolted on top of the poured concrete wall.

# NY Caulk Color...

When you call for COLOR . . . call on CALBARI Calbar Caulking Compound is now available in any color your job may require, including Brilliant Aluminum . . . to match every building material on the market. COSTS LESS . . because it's permanently elasticized, goes on easier, stays on longer! Calbar colors are non-fading. In bulk and cartridges.



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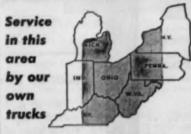


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For fast low cost installation . . . a size to fit your need.

Model No.	Free Del.	Celling Opening	Height
AVP-30	5000	31"x31"	18%"
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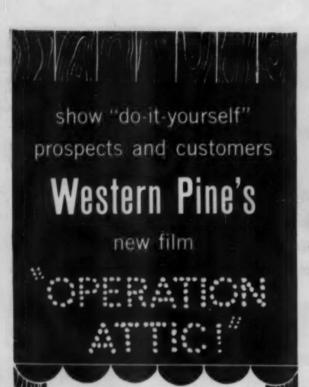
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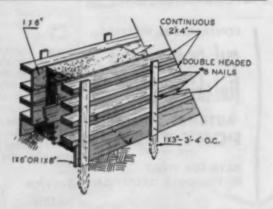
# How to do it better

Ideas for the man on the job



## Provides moisture barrier for solid soffit

Garfield Enstrom & Sons, builders in Villa Park, Ill., use a solid 1x12 plank for the face of the soffit in the kitchen instead of framing out with 2x2's for the plaster. To prevent the plaster from cracking when the job is completed, an asphalt-saturated felt paper is nailed over the plank to keep moisture out and prevent buckling.

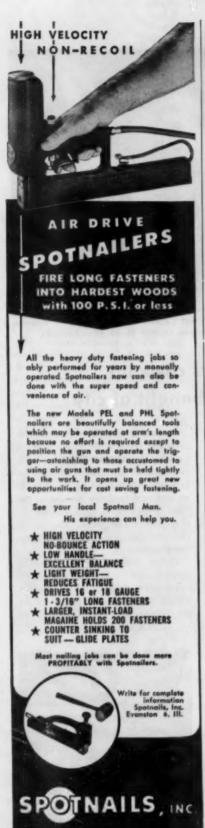


# Built-up forms require little bracing

This method of building forms for inverted "T" poured concrete foundations for basementless houses avoids waste of lumber. The wood sheathing 1x6's and 2x4's are reused later on the building.

Stakes are driven into the ground on about 3-foot centers. The grade is shot for the top of the concrete foundation on the top of the stake and also the point where the top surface of the uppermost 2x4 is to be nailed. Nail the 1x6 or 1x8 for the footing at the bottom of the stake and nail the 2x4's from the bottom upward. Nail the sheathing on the inside of the form, starting from the top. This makes a very straight form wall that requires little bracing.

-S. Coomer, Los Gatos, Calif.





He's the proud breadwinner of a growing family, ready to buy his first home! And he's asked you to build his 'dream house'.

You know you're going to have to design the home with plenty of extra space. And don't forget to save them money, too.

Sounds easy enough . . . but it can't be done if the home is heated with an ordinary furnace.

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at the



#### Norman Sketchbook!

The Norman Southerner horizontal forced-air gas furnace can help you plan your home for greater living comfort at lower construction costs.

You can see how it's done in the Norman Sketchbook!

Each page is illustrated with a different home, showing a sketch of the complete floor plan. Every home is heated with the same Norman Southerner. Just what you need to show new home buyers how compact modern heating with the Norman Southerner lets you plan the home with a greater freedom of design for more space and convenience.

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Whatever you're looking for in a transit . . . look no further . . WHITE'S got it ... and in good measure! More than 40 years of knowhow assure you of ACCURACY... to within 5 minutes on the vernier. SIMPLICITY . . . designed without unneeded frills or gadgets for fast adjustability and easy reading. DU-RABILITY ... built for rough going, winter or summer and for years on end. PRICE . . . model 3000 complete with tripod for only \$195.00° is a value you can't equal. Fill in coupon below for complete details and name of nearest dealer.



of fine optical instruments that engineers, surveyors, meteorologists and navigators have regarded as standard for more than 40 years.

Prices subject to change without notice.

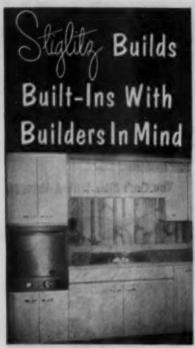
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Yes, I'd like full details and prices on DAVID WHITE instruments and name of nearest dealer.

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- Models For Every Kitchen Design
- Sturdy, quality construction for customer satisfaction
- Easy installation holds Builder costs down
- A thorough-going builder's program to up your profit





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INSERT OVEN

# 4 Cooking Top Models and Griddle

send today for specification sheet and complete details.

# gas models coming soon!

See PeerLans Ave., Louisville 3, ev.

Please and free literature, specifications and prices
on Stiglitz leftz-Aire Electric Ranges. I am a 
Builder Building Supply Desire Distributor
Other...

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# 'Operation Kids' . . .



'Operation Kids' in the planning stage, with (L to r.) John E. Bauer of ABC Construction Co., Edward Boyer, architect Edward D. James, Shirley Warren, and David Augustus, president of Marion County Residential Builders

# Indianapolis builders chalk up a speed record for benefit of city



A few days before the one-day building effort, slab foundation was poured and plumbing roughed in

In a vivid example of civic awareness and responsibility, the Marion County Residential Builders Association and the Sheriff's Office in Indianapolis teamed up to provide recreational facilities for one of the most neglected neighborhoods in that city. The area has 2,165 children and practically no recreational outlet.

Called Salk Park, the unique project centers around a \$20,000 building constructed and donated by MCRB on a 7-acre site purchased by the Benevolent Association of

(Continued on page 225)



Sidewall panels were preassembled and go quickly into place as the number of small-fry sidewalk superintendents increases



By noon, the drywall men were installing ceiling

---

# 'Operation kids' con't



At 2:30 p. m. the building is taking shape. Not only speedy individual work but perfect coordination of supplies made the one-day erection record possible

Sheriff's Employees. Complete with outdoor and indoor recreational equipment, the park represented an investment of about \$35,000 and was turned over without charge to a civic group in the vicinity.

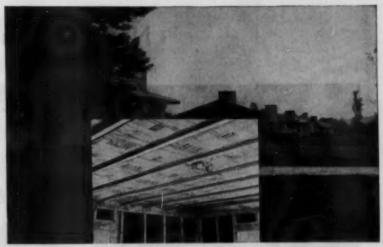
The actual building, 26x50 feet, was erected in an all-out one-day effort by MCBR. The ABC Construction Company served as volunteer general contractors for the project, and worked with materials donated by more than 60 firms in the builders' organization. David Augustus is president of the MCRB. Edward D. James, representing the Indianapolis chapter of the A.I.A., served without pay as architect.



Three days were devoted to inside finish work. Here workmen apply trim around the window wall



Completed building has kitchen, prefab fireplace and other equipment needed in a field house



Above: group of Alfol-insulated Durrett hames—builder's own in foreground. Inset: Alfol Type 2, dished into the ceiling of one of the homes in progress.



# "When you live in your own project, it pays to use products like Alfol!"

If they had complaints, home owners in one of Louisville's most attractive subdivisions would not have to travel far to lodge them. The builder, Jack T. Durrett, lives in his own

The entire development, soon to reach 150 homes, is insulated exclusively with Alfal Reflective Insulation.

#### "Low heating bills."

"When you live in your own project," writes Mr. Durrett, "it pays to stick with the best. ... In the case of Alfal, my own low heating bills reflect the satisfaction of others . . . and in the summer time, I have the happiest neighbors in Louisville!"

Naturally, Mr. Durrett also welcomes the initial savings provided by Alfol. And the way its remarkable application speed helps keep him on schedule. But his choice of Alfol was based primarily on its proved, thorough-going efficiency.

#### Foil sheets self-spacing.

"First in Reflective Insulation," the Alfol blanket consists of multiple aluminum foil sheets that space themselves automatically, reflect 95% of all radiant heat. A tough duplex-and-kraft backing is built in to offer DES

full application support, provide America's finest vapor barrier.

Clean, non-irritating, Alfol takes the "itch" out of insulation. And its amazing compactness (500 sq. ft. to the roll) minimises handling and storage expense. That's why Alfol usually costs less. Your dollar buys less labor, less "overhead" . . . more and better insulation.



#### Write for details.





# New time-saving trick in pier



**EXTENSION BLADES** enable earth suger to bore a 39-inch diameter hole. Blades retract for smaller hole.



POWER WINCH drops steel form in hole, pulls it out after footing is poured. Form keeps out ground water.



FEEDER SNOUT attached to dozer fits opening of smaller form, is used to pour batch of transit-mix concrete.



DIRT IS PACKED around smaller steel form to keep it in place during pouring. Dozer does most of backfilling.

# ... earth auger is two and a half times faster

W ith an earth auger and two steel forms, you can place footings and piers 2½ times faster and at a saving of two-thirds in costs. And that includes digging.

Builders Murray Glickeman, Ross Langfur and E. A. Ballin of Oceanside, L. I. are using this technique to put down 20 footings and piers a day at a cost of \$11 per unit. For them this amounts to a saving of \$320 per house.

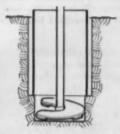
They started out with conventional excavating equipment plus wood and cardboard forms—but soon switched to the earth auger and steel forms. These seal out troublesome ground water and are quickly moved from hole to hole.

Reinforcing rods tie pier and foundation wall together. Since the wall acts as a continuous beam across piers, no other footings are necessary.

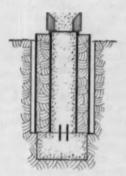
# pouring ...



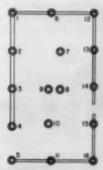
FIRST STAGE in pouring footings is to bore hole for steel form. Auger bit works best in loose to firm soils.



SECOND STAGE shows steel form in place, bit extension retracted for boring hole where footing is to go.



in Final STAGE, form for pier has been placed and concrete is being poured. Operation is continuous.



FOUNDATION PLAN shows footings and piers required for 24' by 43' house. Numbers indicate order of pouring footings and piers.

# everyone talks about the weather

...But Arcadia solved the weather problem with Twin-Seal Wool Pile Weatherstripping—another important point of difference between Arcadia and other sliding glass doors.

Twin-Seal Weatherstripping on Arcadia's new custom aluminum door is shown below in a section at the latching jamb. A positive weatherseal between jamb and sliding panel is made by a double row of opposing wool pile weatherstrips. Wind, rain, cold and dirt are locked out tightly. Identical wool pile strips at head and interlocker, and a spring-loaded wool pile sill strip complete the four-side weatherseal. Arcadia's aluminum-backed weatherstripping, fully silicoated for moisture and abrasion resistance, is easily replaced without dismantling the sliding panel.

Twin-Seal Weatherstripping is just one Arcadia point of difference you should know about. Other important Arcadia features are detailed in our expanded 1955 Catalog 55-A. For a copy, phone your Arcadia distributor or wire us collect.





# Eliminates costly on-the-job sanding and finishing

DELFAIR Prefinished Strip Flooring in Red or White Oak brings built-in beauty to every room. Builders especially like DELFAIR Prefinished Strip because it saves them time, trouble and money on the job. Beautifully finished, waxed and polished at the factory, DELFAIR Prefinished Strip holds up longer because its finish penetrates deeper. It's ready to walk on the minute it's laid. You'll not only build up greater customer acceptance but also save yourself real dollars by using DELFAIR Prefinished Strip. Write for complete information.

# ALWAYS ASK FOR THE TELFAND BRAND

STANDARD' STRIP

PREFINISHED

OAKBLOK

PLANK

MULTI-WOOD BLOK

D. L. FAIR LUMBER CO. Louisville, Mississippi

MEMBER NATIONAL OAK FLOORING MANUFACTURERS' ASSOCIATION

# SUPERMARKET selling methods make mass sales



AS IN A CROWDED BAKERY, prospective buyers visiting this sales office take a number and are called in turn to discuss location of homes and financing. Maps of the new community are mounted behind counter

Leonard W. Besinger & Associates are using mass sales methods in selling 1,100 houses produced by United States Steel Homes, Inc., for the builders' new Meadowdale subdivision in Carpentersville, near Elgin, Illinois. This is the first unit of an eventual 8,200-home community planned by Besinger and rated as one of the country's largest developments using prefabricated houses. The project covers over 2,700 acres.

While the crowds are inspecting Besinger's six full-scale furnished model houses, hostesses answer questions, but make no effort to sell.

After prospective buyers have had an opportunity to "shop" for their homes, they enter a 250-seat theater and view a 23-minute movie on the new community. The movie answers questions on the prefabrication industry, utilities, shopping centers, schools, churches, transportation and local industries.

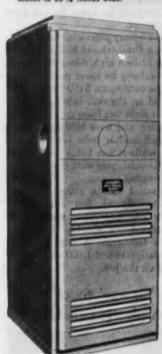
All sales are closed in a public gathering in the theater. Couples are introduced to one another and all questions on the construction of the home and costs are answered.

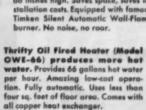


NO CHANCE TO TURN BACK: Six model homes, each with six rooms and having the same floor area are located so that visitors must go through each one to get out—there is no chance to turn back

# CLINCHER when it comes to selling homes!

Closet-Size GFK-100 Counter-flo Gas Furnece. Ideal for small slob or crawl-space houses. Three sizes, from 75,000 to 125,000 BTU. 66 inches high, 29 inches deep, from 16¾ inches to 23¾ inches wide.







The Compact OFH-80 Oil Furnace!
Complete in fully-integrated, accurately balanced unit. 26 inches sq. by 66 inches high. Saves space, saves installation costs. Equipped with famous Timken Silent Automatic Wall-Flame burner. No noise, no roar.

FAMOUS

# TIMKEN Silent Automatic HEAT

Today's home buyers are name conscious. Experience has taught them to look for, and have confidence in, nationally advertised brands. That's why it's easier to sell them a home equipped with Timken Silent Automatic Heat.

Timken Silent Automatic spells quality to the publict For many years, Timken Silent Automatic has engineered thousands of superior heating products—spent millions of dollars in advertising to acquaint the public with its fine lines of gas and oil heating equipment. This combination of fine product and powerful promotion has made Timken Silent Automatic a preferred choice in the public mind . . . a name that means quality.

Less frequent service—longer satisfaction. Timken Silent Automatic units are designed and constructed to give many years of trouble-free operation. And Timken Silent Automatic controlled installation assures better performance and greater customer satisfaction.

Experienced engineering counsel. One of the most valuable services offered to builders is the Timken Silent Automatic expert engineering counsel. Its staff has planned thousands of installations. All this "know how" is at your disposal to help plan your heating layouts in the best and most economical way.

Ask about the "Builder Development Plan." The Timken Silent Automatic Builder Plan offers the right selection of heating equipment for one home or a hundred. Every type of installation is available—gas, oil, warm air, or hot water. If specifying equipment or planning a development, write for the Timken Silent Automatic "Builder Development Plan."

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Now...for less money

# Put more cost-cutting, portable electric power on your jobs!

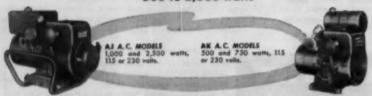
That power-packed Onan Model 205AJ on the construction site above, delivers 2,500 watts of A.C. power, enough to operate several electrical tools or floodlights simultaneously. Powered by an Onan 4-cycle gasoline engine, it has all the 4-cycle advantages of quick starting, long life and easy maintenance, yet it weighs only 154 pounds, and costs less per watt of output than any electric plant in its size range.

This model and others in the new AJ and AK series, ranging in size from 500 to 2,500 watts, are all lighter in weight, more compact, and lower in cost than previous models. They are completely Onan built . . . powered by new, modern, short-stroke, single-cylinder Onan gasoline engines, direct-connected to Onan dripproof all-climate generators.

Equipped with carrying frame or two-wheel, rubber tired dolly, these new electric plants can be taken anywhere . . . moved around easily on the job. Get all the facts on these new electric plants from your Onan distributor.

# **NEW POWER-PACKED MODELS**

500 to 2,500 watts



Electric Plants for every need-500 to 50,000 wetts



Write for Special Folder!

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Courteey, Waco Mig. Co.

# Overhanging beam shored from outriggers

Faced with shoring a second-story overhanging beam from soft sand to the beam formwork over 20 feet above, a Minneapolis contracting firm, Kraus-Anderson, Inc., solved the problem by doing the job from outriggers.

The 6-story porcelain and glass Lutheran Brotherhood building called for a 41-inch high, 8-inch deep beam to overhang its lower portion.

The outriggers, 6x10-inch timbers placed on the slab below, extended about eight feet from the edge of the building and were held in place by ½-inch anchor bolts placed in the slab while it was being poured. Set on the outriggers were 6x6-foot timber purlins.

All-steel shores, extended to approximately 11 feet and spaced every two feet along the purlins, completed the shoring up to the beam formwork. A total of about 35 outriggers and 1,800 shores were used on the job.

# An 'air age' touch with plastic panels



Courtesy, Filon Plastics Corp

Interesting decorative effects were achieved with translucent plastic panels at Los Angeles International Airport's new hotel, Hyatt House. The panels were used as structural and ornamental components of each room's lanai (baleony), as skylights, in vestibule doors, as a fence material and for partitions

# Aluminum-one good answer for commercial remodeling



AN ALUMINUM JACKET, which reduces expense of heavy structural framing

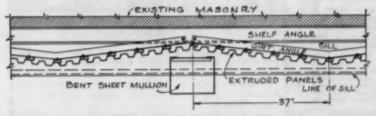


GIVES UNITY and outstanding design to a set of old and new buildings

Vertical fluted aluminum panels, three feet wide and interlocked edge to edge in assembly, are being used in the remodeling of the exterior of Thalhimer's department store in Richmond, Virginia. A full city block of store buildings, new and old, is being covered with a skin of aluminum in such a manner that they appear to be a single building of uniform height.

The light weight of the aluminum skin makes it possible to use girt framing, permitting an economical installation. Actual installed cost of the extruded material is about \$3.50 a square foot. The massive box-type grid frame into which the panels are set consists of horizontal extruded members and vertical boxed steel columns, both in natural aluminum finish. The panels within the grid are set at about a 30-degree angle to each other in a sawtooth design.

The steel members are bolted to the masonry exterior of the original building. Provisions were made for draining condensation and through moisture to the exterior of the metal wall at each floor level.



Horizontal section through aluminum facade of Thalhimer's new aluminum front in Richmond, Virginia

THESE SCREENS
HELP SELL
YOUR HOUSES
and
Cost you leas!

You can install Durall Tension Screens on windows, porches and breezeways at less cost than frame screens, and make them a sales feature of the house.

Cost loss to buy—far less expensive than other screens or combination windows (28" x 54" size list \$5.10)

Cost less to put up—no fitting, 5 screws and they're up, installed from the inside in 10 minutes.

Give more value—all aluminum—last a lifetime. Tension holds them tight to the window frame—bugs can't get in!

Easier soles—house buyers know through national advertising that Duralls go up easy, come down easy...from inside...Roll up to store away in small space...Never need painting.

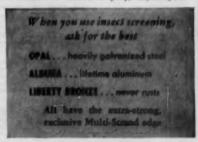
Any size up to six foot wide—immediate delivery! Styles to fit any type window. Also available with Kaiser Aluminum Shade Screening.

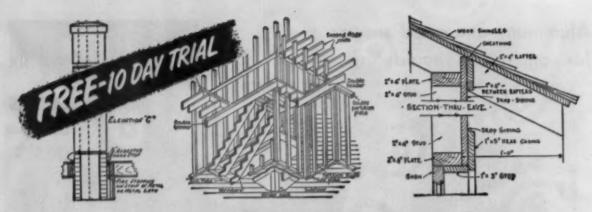
Start today to use Duralls, the smart, modern screens. Your lumber, building supply or hardware dealer has them or can get them for you. Or write for full descriptive booklet.





New York Wire Cloth Company, Inc., York, Pa.





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# HOUSE CONSTRUCTION DETAILS

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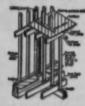
Here, at last, is an exact working guide on every detail of house construction from foundation to finish. Tells you dimensions, materials, processes, step-by-step working methods. Hundreds of scale drawings and photographs make every step easy to follow. Can be used for alterations in a set of stock plans, for making additions or changes in a building, or for complete construction of a dwelling.

Conforms with modern practice and building regulations in all parts of the country. A book you will refer to for years! The professional guidance you get on even a single house construction detail can repay you a hundred times the small cost of this wonderful volume! Send for freeexamination copy today. Mail coupon below.

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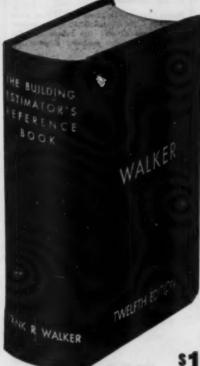
Send me for 10 DAYS' FREE EXAMINATION, "House Construction Details." I will either return it in 10 days and owe nothing, or send only \$4.95 (plus shipping charges) in

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from cover to cover and includes information on new and modern materials, tools and methods. No builder can afford to be without it if he wants to compete in today's price battles, yet protect his profits.

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Here's profit-making utility in a versatile, low cost unit! HOPTO mounts on any 1½ ton or larger truck . . . one already charged off to depreciation! HOPTO gives you a mobile unit for handling bulk materials, pulling forms, spotting trusses and steel, excavating for footings and foundations! HOPTO does bundreds of jobs! Cuts labor costs in half or less!

COMPLETELY HYDRAULIC . . . EASY TO OPERATE

An average unskilled laborer can easily master the simple handling of a HOPTO in a few hours. Four valve control levers give HOPTO a 200° swing, 11-foot digging depth, 14-foot lift (24-ft. with crane boom), and control the dipper stick extension to permit vertical, straight-sided digging.



#### UNEXCELLED UTILITY

Unloading Construction materials is but one of the hundreds of jobs that a crane-boom equipped HOPTO does more safely, in a fraction of the time! Crane-boom, grapple hook, shove! buckets and back hoes in a variety of sizes and types equip the HOPTO for your kind of work. Units are easily interchangeable. Choice of power units, or HOPTO may be equipped to operate from the power take-off of the truck on which it is mounted.

# THESE PROFIT-MAKING PEATURES

- Easily interchanged units quickly adapt it for hundreds
- Digs 60' of 6' deep transh
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addition to the truck-mounted unit illustrated, HOPTO is available as a ller anit, self-powered or power take-of operated, as unit for crawler for mounting, or as a complete self-powered, self-propelled track unit, teer also manufacture a full line of Badger Trenchers.



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BUILDING LINES LOT LINES PIPE RUNS, etc.





Save time ... Save money ... No previous surveying experience needed to accurately set up all types of building lines. Simply follow easy instructions enclosed with each unit. Fully guaranteed.

Single prism automatically sights stakes at right angles (90°). Double prism gives 180° sighting. Both prisms are optically accurate to one minute (1').

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- . NO NAILS
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All-welded construction. Use any 2x4s for legs, 2x4, 6, 8, 10 or 12 for crossbar.

Set up or knocked down instantly. Easy to move from job to job, and easy to store.

For sale by most hardware and building supply dealers. If your dealer cannot supply you, write us.





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MOST COMPLETE LINE ALL TYPES, SIZES, GRADES





ROUND STREAMLINED STRAIGHT



IMPERIAL LUX-RIGHT Standard for Ameri-can Homes. Galva-nized after fabrication. Streamlined-Straight, Round, Square.

ICONOMY: For medium-priced homes. Tight-coat galvanized.

ACCESSWAY: Right angle corners let doors to crawl space swing wide open. (F. H. A. Type.)

CASEMENT: For lower floor rooms with casement windows.

FOUNDATION VENTS: Corrugated.

We prepay freight on 12 or more units.
FREE Felder. See dealer or write. ABG

SAINT PAUL CORRUGATING CO

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The Market Place for buying and selling used merchandise, help wanted, positions wanted, and other classified listings.

Rates-47.50 minimum for 40 words or less. 15c for such additional word.

Display Classified-\$35.00 per inch. Reverse plates not accepted. No illustrations. No agency commission or each discount. One column only-21/4 inches wide. 2 inches maximum. Signature cuis and trade names allowed.

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Complete lumber and millwork yard with Custom Home Building setup with full size model on property. Buildings of more than 12,000 aq. ft. of floor space, railroad siding, five woodworking machines plus a self-feed ripsaw, three trucks, new fork lift only one month old, concrete driveways, beautiful office and equipment. Living quarters consisting of 3 rooms and 1½ baths, with kitchen cabinets, electric range, electric hot water heater with separate night meter. All must be seen to know its real value? A going business all for \$110,000 Terms \$60,000 cash and a ten year mortgage of \$50,000 payable \$5,000 and interest each year. Elizabeth Sash Door & Supply Co., 430 E. Westfield Ave., Rozelis Park, N. J. Russell T. Lammerding, Sr. Call anytime during day or evening Chestnut \$-5625.

#### MANUFACTURERS REPRESENTATIVES

Territories available throughout country. Outstanding line of low cost sliding door medicine cabinets, with and w/o lights. Superior roller mechanism for mirrors. Unusually beautiful. BUILDCRAFT PRODUCTS, 238 E. 36 St., New York 17, N. Y.

# men over

More than six times as many men of your age will die of lung cancer this year as died in 1933. Our research scientists still don't know why.

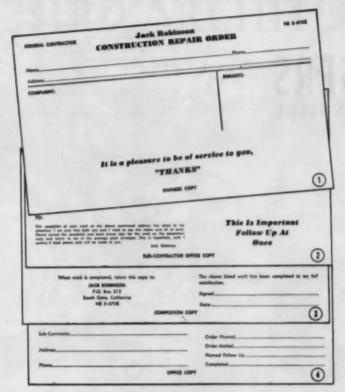
They do know, however, that over half of those who will develop lung cancer oun be saved . . . if they get proper treatment while the disease is still in the silent, symptomless stage. That's why we urge you to have a chest X-ray every six months no matter how well you may feel.

For more information call us or write to "Cancer", care of your local Post Office.

American Cancer Society



# Hints on customer relations



#### BE SYSTEMATIC IN HANDLING COMPLAINTS

This form, made out in quadruplicate and used by a Lynwood, California, builder, provides a very workable system for correcting complaints. Complaint No. 1 is blue, No. 2, green, No. 3, yellow, and No. 4 is filed. Copies Nos. 2 and 3 go to

office until the work has been completed. Copy No. 1 is then sent to the owner and No. 4 is filed. Copies Nos. 2 and 3 go to the subcontractor involved, who is followed up until he returns copy No. 3 with a report on his work.

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#### DETAILED LABOR BILL CONVINCES REMODELING CUSTOMERS

On cost plus remodeling jobs, builder Henry Bertch of South Pasadena, California, finds that it makes a good impression on the customer to send him a copy of the form reproduced here, attached to the itemized bill. This form records the hours put in by the workmen on the job. On the bill itself, Bertch will simply use a total figure for labor. Attaching the form breaks down this total for the customer, who generally feels pleased when he realizes that it is an actual copy of the time sheet.



Homes constructed by Palmer & Krueger, Kengsha, Wisconsin

# Magnesium Forms Speed Work on Kenosha Jobs

Jim Krueger of Palmer & Krueger, Kenosha, Wisconsin says that after several days rain which left the ground muddy and substantial water in the excavation, his men were still able to strip Symons Magnesium Frame Plywood Forms from one job, load them on a truck, and take them to another job at the other end of town, unload them and set them up ready for pouring by 1:30 P.M.

#### ACTUAL SET-UP TIME-2 HOURS

The foundation was 30' x 42' with window bucks and brick ledge. Walls were 7 feet high and 10 inches thick. Jim Krueger credits the fast set-up to Symons Lightweight Magnesium Frame Plywood Forms and his crew of 4 experienced men.

#### 90 USES PER SET PER YEAR

Palmer & Krueger has two sets of Symons Magnesium Frame Plywood Forms. They pour an average of 6 foundations per week. Before each use, the forms are oiled with a horse hair window brush that has a six foot handle. Forms set up one day are always stripped the following morning. Time required for stripping is approximately one hour.

#### FREE ENGINEERING SERVICE

Upon receipt of your plans our engineering staff, which is experienced with all types of forming, will furnish complete form layouts and job coat sheets on your form work—at no charge or obligation. Our salesmen are always available for consultation and to give advice on form erection, pouring and stripping methods. Builders throughout the country use this service to their benefit and profit.

Rentals—Symons Forms, Shores and Column Clamps may be rented with purchase option, all rentals to apply on purchase price.

<u>\$</u>	Symons
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